

U. S. DEPARTMENT OF LABOR
JAMES J. DAVIS, Secretary
BUREAU OF LABOR STATISTICS
ETHELBERT STEWART, Commissioner

MONTHLY LABOR REVIEW

VOLUME 29

NUMBER 3



SEPTEMBER, 1929

**UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1929**

For sale by the Superintendent of Documents, Washington, D. C. - - - - - Price 15 Cents per Copy
Subscription Price per Year; United States, Canada, Mexico, \$1.50; Other Countries, \$2.25

U. S. DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS
THIRTEENTH STREET, WASHINGTON, D. C.

LABOR REVIEW

MONTHLY

NUMBER 3

VOLUME 29

CERTIFICATE

This publication is issued pursuant to the provisions of the sundry civil act (41 Stats. 1430) approved March 4, 1921.



SEPTEMBER, 1929

UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON, 1929

Contents

Special articles:	Page
Old people's homes for certain occupational groups.....	1
Labor legislation in Cuba and certain Central American countries, by Moisés Poblete Troncoso.....	7
 Industrial and labor conditions:	
Situation in the women's garment trades.....	21
Payment of wages by check.....	32
Mexican labor in the South Platte Valley, Colo.....	37
Training the older employee for continued employment.....	47
Industrial museum for Chicago.....	48
Railway employees' research foundation.....	49
Skill involved in electric-railway track labor.....	50
New policy of the Queensland Labor Department.....	50
Improved coal situation in England.....	51
 Productivity of labor:	
Production and per capita output in Japanese coal mines, 1914 to 1927.....	53
 Women in industry:	
Negro women in industry.....	54
 Child labor:	
Migratory child workers in California and elsewhere.....	57
School-leaving age in England.....	59
 Recreation:	
Plan for increase of recreational areas in Massachusetts.....	60
 Health and industrial hygiene:	
Industrial tuberculosis.....	61
Methyl chloride poisoning in mechanical refrigeration.....	62
Great Britain—Silicosis among sandstone workers.....	64
Italy—Milan Labor Clinic.....	65
 Industrial accidents:	
Industrial accidents to minors in Illinois in 1928.....	68
 Training and placement of the handicapped:	
Deaf and dumb in industry in Great Britain.....	69
 Workmen's compensation and social insurance:	
Occupational-disease legislation in the United States.....	70
Legislative action on workmen's compensation in 1929.....	89
Recent workmen's compensation reports—	
British Columbia.....	90
Ontario.....	91
Belgium—Mutual insurance institutions.....	92
England—Change in contributions to unemployment insurance fund.....	92

Old-age pensions:

Proposed pension plan for California State employees.....	94
Safeguarding the employee's interest under industrial pension plans..	95
South Africa—Old-age pensions.....	96

Labor laws and court decisions:

Chinese conciliation and arbitration law of 1929, translated by S. K. Sheldon Tso	98
New trades dispute act for India.....	102

Housing:

Report of New York State Board of Housing.....	104
England—Housing subsidy.....	108
Italy—Construction of workmen's houses in Genoa.....	109

Cooperation:

Cooperative oil associations in Kansas.....	111
How one society arouses interest in cooperation.....	111
Productive center of a large cooperative society.....	113
Canada—Development of consumers' cooperation.....	113
China—Cooperative movement.....	114
Russia—Cooperative measures for protection of maternity and infancy.....	115

Industrial disputes:

Strikes and lockouts in the United States in July, 1929.....	116
Conciliation work of the Department of Labor in July, 1929.....	124

Labor turnover:

Labor turnover in American factories.....	128
---	-----

Wages and hours of labor:

Hours and earnings in bituminous coal mining, 1926 and 1929.....	130
Wages and hours of labor in blast furnaces and Bessemer converters, 1929.....	139
Union scales of wages and hours of labor, 1913 to 1929.....	144
Wage increases established by recent agreements and awards.....	168
Farm wage and labor situation on July 1, 1929.....	171
Illinois—Hours of labor in factories, April, 1929.....	173
Massachusetts—Wage earners and per capita earnings in manufacturing, 1919 to 1927.....	174
Denmark—Wages in Copenhagen and Frederiksberg, 1928.....	176
Switzerland—Wages and working conditions in the silk-dyeing industry in Basel.....	177
Soviet Union—Wages and hours of labor in Ukraine, 1928.....	178

Labor awards and decisions:

Arbitration awards—	
Building and common laborers—Denver, Colo.....	180
Railway clerks—Chicago & North Western Railway Co.....	180

Stability of employment:

Guaranty of minimum annual income to employees by paper company.....	182
Guaranty of steady employment to minimum number of shop employees by railway company.....	183

Employment conditions and relief:	Page
Cincinnati employment agencies.....	184
England—Unemployment grants.....	193
South Africa—Rehabilitation of the rural poor.....	194
Trend of employment:	
Summary for July, 1929.....	197
Employment in selected manufacturing industries in July, 1929.....	198
Employment in coal mining in July, 1929.....	209
Employment in metalliferous mining in July, 1929.....	210
Employment in quarrying and nonmetallic mining in July, 1929.....	211
Employment in public utilities in July, 1929.....	212
Employment in wholesale and retail trade in July, 1929.....	212
Employment in hotels in July, 1929.....	213
Employment in canning and preserving in July, 1929.....	214
Employment on Class I steam railroads in the United States.....	215
Changes in employment and pay rolls in various States.....	217
Wholesale and retail prices:	
Retail prices of food in the United States.....	222
Retail prices of coal in the United States.....	240
Wholesale prices in the United States and in foreign countries, 1923 to June, 1929.....	242
Index numbers of wholesale prices in July, 1929.....	245
Cost of living:	
Cost of living of Federal employees in five cities—Part 2: Food con- sumption.....	248
What women wore in the nineties.....	260
Bulgaria—Cost of living, March, 1929.....	261
Immigration and emigration:	
Statistics of immigration for June, 1929.....	262
Publications relating to labor:	
Official—United States.....	266
Official—Foreign countries.....	266
Unofficial.....	269

This Issue in Brief

Only persons who have followed certain specified occupations are admitted to 25 old people's homes covered by the bureau's recent study of homes for the aged. Thus, 1 home admits only retired music teachers; 1, professional people; 1, business or professional men; 9, ministers, missionaries, etc.; 2, actors; 1 each, printers and printing pressmen; 2, seamen; 2, firemen; 1, railway conductors; 1, locomotive engineers and firemen; 1, carpenters; 1, wooden-ship builders; and 1, mechanics. One home is supported by the State in which it is located, 7 homes are supported by religious denominations, 5 by trade-unions, 2 by other organizations, and 10 by private groups. These homes have accommodations for some 2,900 persons (p. 1).

While considerable progress in social legislation has been made in certain of the Central American countries, the limited industrial development in these countries has been responsible for the comparatively small volume of such legislation. Economic activity has been mainly along agricultural lines. The various measures of labor legislation in Cuba, Guatemala, Nicaragua, Salvador, and Costa Rica are described on page 7.

Desire for reorganization of the women's garment industry and abolition of the sweatshop was the underlying cause of the recent strike in that industry in New York City. During recent years the industry has become demoralized, the sweatshop has reappeared, and proper working conditions have been difficult if not impossible to enforce generally. The strike was of short duration and both sides made concessions, but the agreement finally signed contained several provisions that represent considerable advancement. Since the signing of the agreement both the employers' associations and the union have increased in membership. The condition of the industry and the terms of the agreement are described on page 21.

An industrial hazard, increasing in importance with the increased use of mechanical refrigeration for domestic purposes, is that of methyl chloride poisoning. Since August, 1928, 29 cases of such poisoning (with 10 deaths) have been reported from Chicago alone. One of the chief dangers in connection with the gas is that it lacks a marked odor or irritating properties which would attract attention to its presence (p. 62).

Both average hourly rates and average half-monthly earnings decreased in the major occupations from 1926 to 1929 in the bituminous-coal industry, as shown by a study made by the Bureau of Labor Statistics covering 535 mines with a working force of 152,211 (p. 130).

Mexican laborers perform a large part of the work of thinning and weeding in the cultivation of the beet-sugar crop in northeastern Colorado. These laborers are recruited by trainloads and shipped into the beet region, usually in family groups. The presence of these necessary

but generally transient workers has created certain conditions and problems which are discussed on page 37.

Special training tends to increase the length of the working life of the employee. A few firms are training their older employees for lighter jobs in order to allow them to continue work as long as possible. In other firms, although no special training is given, the older employees are practically never discharged but are either pensioned or found suitable work, according to a survey reviewed on page 47.

The problem of training the children of migratory families is an increasingly widespread and difficult one. Thousands of families with no other property but an automobile are drifting from place to place. The social and physical effects on the children are deplorable. The health conditions of the camps where they live are often wretched. They are nomads, "practically trained in instability," receiving no industrial training and very little schooling. The steps taken in California to provide some sort of education for this class of children are described on page 57.

Increased earnings per hour and per full-time week are shown by a study recently made by the Bureau of Labor Statistics of 37 blast furnaces and 11 Bessemer converters. In the blast furnaces average earnings per hour increased from 51.7 cents in 1926 to 52.8 cents in 1929, while in the same period full-time weekly earnings increased from \$30.92 to \$32.05. In the Bessemer converters hourly earnings increased from 64.1 to 64.3 cents and full-time weekly earnings from \$33.72 to \$34.53 (p. 139).

Compensation awards for occupational diseases are allowed in only 14 of the 48 States and Territories which have workmen's compensation laws. In some cases the law provides for general coverage of occupational diseases; in others only specified diseases are compensated for. The provisions of the various laws allowing awards for occupational diseases, together with certain statistical data regarding the incidence of such diseases, are given in an article on page 70.

South Africa has a "poor white" problem which it is endeavoring to solve. In order to assist the landless unemployed persons in backward and isolated districts, who have often been spoken of as hopeless, the Government of South Africa has undertaken a land settlement scheme. The applicants with their families spend a certain period of training in intensive agricultural methods, after which they are advanced, as they show aptitude, to farming under supervision, and then to independent farming. An original feature of the work was the establishment of three cooperative farming communities, in which the trainees clear the ground, prepare it for cultivation, put up the buildings, and otherwise do the whole work of development. An account is given of progress at one of these, Zanddrift. See page 194.

A recent study by the bureau covers 20 important time-work trades in 67 leading cities, showing the hourly wage rates and the hours per week established by agreement. Preliminary figures are given on page 144.

MONTHLY LABOR REVIEW

OF U. S. BUREAU OF LABOR STATISTICS

VOL. 29, NO. 3

WASHINGTON

SEPTEMBER, 1929

Old People's Homes for Certain Occupational Groups ¹

TO GAIN admittance to some of the homes for the aged the applicant must have been a member of a certain occupational group. The Bureau of Labor Statistics has data for 25 such homes.

One of these is open only to persons who have worked in the construction of wooden ships; as the wooden ship is becoming a thing of the past, the number of persons eligible for admission to this home is small. Two are homes to which only volunteer firemen are eligible, in one case after 5, and in the other after 7 years' service. Service on merchant ships sailing under the American flag is required of applicants to the two seamen's homes; in one case 5 years' service is necessary. Another home admits only those who have earned their living by work in art, music, education, or any of the various professions, while another requires that applicants must have occupied a position of some responsibility in business or professional life. One accepts only persons who have taught music in the United States for at least 25 years. Two others admit only actors on the speaking stage.

Of the 9 ministers' homes, 2 are of the Baptist denomination, 2 Presbyterian, and 2 Methodist, while 1 each is Christian, Christian Scientist, and United Brethren. Three of these accept also the widows of ministers and four also the wives, while in two cases missionaries also are included and in one case deaconesses as well. The Christian Science home accepts any person who has spent 10 years in the active service of the church. One home accepts only retired Presbyterian ministers who do not use tobacco in any form.

One home is operated solely for the benefit of "aged, infirm, and deserving American mechanics," who have worked as mechanics for 10 years. The remaining homes—for carpenters, persons in train service, printers, and printing pressmen—accept only members of the supporting labor organizations, who have belonged to the union for a specified time.

¹This is one of a series of articles dealing with the care of the aged in the United States. Previous articles appearing in the Labor Review dealt with homes of fraternal and religious organizations (March, 1929, pp. 1 and 12); homes of nationality and private groups (April, 1929, pp. 1 and 7); church pension and relief plans for ministers (May, 1929, p. 92); administration and condition of old people's homes (July, 1929, p. 1); and homes for aged colored persons (August, 1929, p. 10). The data will appear later in detail in Bulletin No. 489 of this bureau.

These homes have accommodations for some 2,900 persons. They are located in the following States:

Music teachers: Pennsylvania.

Professional people: New York.

Business or professional people: New Jersey.

Ministers, missionaries, etc.: California (2 homes), Indiana, Michigan (2 homes), New Hampshire, New York, Pennsylvania (2 homes).

Actors: New York, Pennsylvania.

Printing-trades workers: Colorado, Tennessee.

Seamen: Massachusetts, New York.

Firemen: New Jersey, New York.

Railroad employees: Georgia, Illinois.

Carpenters: Florida.

Ship construction (wooden): New York.

Mechanics: Pennsylvania.

Table 1, below, shows the capacity and average number of inmates and the annual cost of operation of these institutions:

TABLE 1.—CAPACITY, AVERAGE NUMBER IN RESIDENCE, AND ANNUAL COST OF OPERATION OF HOMES OF SPECIFIED OCCUPATIONAL GROUPS

Occupational group	Number of homes reporting	Inmates		Annual cost of operation
		Capacity	Average number in residence	
Music teachers.....	1	55	55	(1)
Professional people.....	1	50	50	\$22,730
Business or professional people.....	1	80	21	(1)
Ministers, missionaries, etc.....	9	266	206	\$180,941
Actors.....	2	45	37	\$50,000
Printing trades.....	2	520	263	\$296,251
Seamen.....	2	912	870	\$14,788
Firemen.....	2	250	157	79,736
Railroad employees.....	2	210	114	\$64,197
Carpenters.....	1	400	(1)	(1)
Ship workers.....	1	50	16	(1)
Mechanics.....	1	70	70	33,483
Total.....	25	2,908	1,859	\$742,126

¹ No data. ² 8 homes. ³ 1 home. ⁴ 24 homes. ⁵ 22 homes. ⁶ 16 homes.

Table 2 shows the same data, classified according to the type of sponsoring organization:

TABLE 2.—CAPACITY, AVERAGE NUMBER IN RESIDENCE, AND ANNUAL COST OF OPERATION, BY TYPE OF SPONSORING ORGANIZATION

Sponsoring organization	Number of homes reporting	Inmates		Annual cost of operation
		Capacity	Average number in residence	
State government.....	1	100	55	\$23,000
Religious denominations.....	7	236	177	155,941
Trade-unions.....	5	1,130	377	\$360,448
Other organizations.....	2	200	118	\$56,736
Private groups.....	10	1,242	1,132	\$146,001
Total.....	25	2,908	1,859	\$742,126

¹ 3 homes. ² 2 homes. ³ 1 home. ⁴ 9 homes. ⁵ 5 homes. ⁶ 24 homes. ⁷ 22 homes. ⁸ 16 homes.

Entrance Requirements

IN ADDITION to having served in a specified occupation the applicants must also fulfill certain other requirements.

Age.—Four homes require that the applicant shall have reached 60 years of age, one home 62 years, five homes 65 years, one home 70 years, and one home 75 years. One home requires that applicants must have retired from work and another that they be "aged." The remaining homes have no fixed minimum age of admission.

Fee.—Only eight homes charge an admission fee, this being set at \$100 in three cases, at \$400 in one case, at \$500 in one case, at \$600 to \$1,000 (according to age) in one case, at \$1,000 in one case, and at \$1,800 in one case. Six also require that the incoming resident turn over to the home any property he may have.

Sex.—Six homes admit men only, one home takes women only, two homes take both sexes, and the remainder accept not only individuals of both sexes but married couples as well.

Location and Home Plant

Actors' homes.—Both of the homes for actors are endowed homes. The Percy Williams Home, at East Islip, Long Island, was endowed by Percy Williams. His will left his home and (eventually) his entire estate to be used for the care of aged members of the dramatic profession. Under the will, however, his widow was given a life tenancy of "Pineacres," where the home now is. During her lifetime, therefore, the old actors had to be cared for elsewhere. Up to 1926 worthy and needy actors were supported at a private sanitarium at Bernardsville, N. J. In 1926 a temporary home was opened at Englewood, N. J., but as "Pineacres" became available the inmates were removed to East Islip in March, 1928.

The estate comprises some 48 or 49 acres, with much water front. There are many buildings on the grounds.

The present capacity of the home is 27.

There is no admission fee, but the applicant for admission must have reached 60 years of age. Both sexes and married couples are admitted. No services of any kind are required of the guests.

Everything necessary for the comfort of the residents is provided by the home. Clothing is furnished as required, as is also medical and hospital care, dental work, etc. Each resident also receives a small allowance every Saturday.

Recreation is supplied through a library and smoking room, swimming pool, motion pictures, pool and billiard tables, bowling alleys, shuffleboard, cards, chess, checkers, etc. The home has also a dance hall. The guests are given a yachting trip once a week on the bay.

The home is directed by a board consisting of six representatives each of the Lambs Club and the Actors' Fund of America.

The other actors' home was founded by Edwin Forrest. At first the home occupied an old house on a large tract of ground in north-east Philadelphia. This was later sold and the present site purchased. The new home overlooks Fairmount Park and at the rear its grounds adjoin those of a country club.

No fee is required for entrance into this home, but the applicant must have reached 60 years of age and must have been an actor on

the dramatic stage. Individuals of both sexes are admitted. Great care is, however, exercised in the admission of guests, the directors being guided in this by certain rules laid down in the will of the founder.

This home was one of the homes to which a personal visit was made by an agent of the bureau, and it proved to be one of the most complete and beautiful homes seen, with everything of the finest quality.

The home is small, as homes go, its capacity being only 18 persons. At the time of the agent's visit only 14 retired actors and actresses were in residence.

One enters a hall of moderate size running across the front of the building and having a vaulted ceiling. Here are a bust of Edwin Forrest and several life-size statues, bookcases filled with bound plays (Forrest left both his picture gallery and library to the home), and low wicker chairs attractively upholstered. This hall leads at the right to a side hall off which are the suite of the matron (or "hostess," as she is called in this home), and a small sun porch and smoking room overlooking the neighboring golf course.

Back of the hall is the "great room," a large living room with elaborately carved mahogany furniture, grand piano, more bookcases, and fresh flowers. The walls are lined with paintings from Forrest's gallery.

At the left of this is the dining room, its small round tables exquisitely laid with snowy linen, silver, and cut glass. One side of this room rounds out and is all windows. Back of this is the dining room for the servants, with tables and chairs finished in apple green.

The bedrooms for the guests are on the second floor, one wing being reserved for women and one for men. Each resident has a private room. Each room is named after a famous actor or actress, and all are most tastefully and attractively furnished. The side wing is reserved for infirmity uses and contains two bedrooms, bathroom, and nurse's room. The servants' quarters are on the third floor.

No services are required of the guests. They come and go as they please. They are not restricted as to hours, nor are they required to inform the hostess where they are going when they leave the house.

The home maintains a motor car for their use. All the guests, having been actors themselves, have free entrée to all the legitimate theaters in the city and may attend performances whenever they please. They send for the car, are driven to the theater, and are called for after the performance.

A small monthly allowance is paid to each guest, and everything is done to obviate any feeling of charity. "It is the earnest wish of the managers that the actors and actresses who enjoy the fruits of Forrest's benevolence shall not regard themselves as inmates of a home, but rather as friends of their noble benefactor." Everything possible is done for their comfort and all is the best that money can buy.

Business and professional people.—Both of these homes are privately endowed.

The Seabury Memorial Home, at Mount Vernon, N. Y., admits only women who have "labored in art, music, education, or any of the various professions." Its latest report shows for 38 of the 50

inmates the occupation followed before entering the home. Of these, 19 had been teachers, 5 had been graduate nurses, 3 music teachers, 2 vocalists, and 1 each was listed as having been a librarian, musician, violinist, librarian and editor, botanist, actress, and nurse, and one each had followed drama and literature as her vocation.

The Ward Homestead admits only men who have attained some standing in business or professional lines. This home was also visited.

It is run on a most lavish scale, can accommodate 80 persons, and consists of a series of wings built at various angles. The architecture is artistic and attractive in the extreme.² The grounds occupy some 80 acres in the residential town of Maplewood, N. J.

It is impossible to describe this home adequately in a brief account. One wing contains the offices, a small reception room, a two-story "lounge" magnificently furnished, game rooms, and sun room. From this wing a flagged walk runs along a terrace to an octagonal summer house from which, on a clear day, one can see to New York City in one direction and to Staten Island in another. The dining hall occupies another wing, while the sleeping quarters surround a large inner grassy court. All these wings are joined by a large sitting room.

There are several entrances to the home, and a sun room at the end of nearly every corridor. Drinking water is piped to all the halls.

The home also contains a physician's office, rooms for general examinations, eye and ear affections, etc., and a number of bedrooms reserved for the use of the sick, a diet kitchen, etc.

The bedrooms are furnished in three general color schemes for carpet, bedspread, window hangings, and upholstery—tan, old rose, and delft blue—the guest being given his choice of these. Each bedroom contains a four-poster bed, a big arm chair and a smaller wing chair upholstered in tapestry, a desk chair, a writing desk, and a chiffonier. Each room also has an open fireplace with a clock of good make on the mantel, a wall bookcase, and a wall telephone. At the head of each bed is a cord with a push button to summon an orderly if attention is needed during the night. The room is provided with a floor lamp, a cluster of lights in the center of the ceiling, and wall lights at each side of the chiffonier. The carpets are deep and soft. The closets have a built-in chest of drawers at one end, above which is a tier of shelves. In a small room opening off each bedroom is a private toilet, bowl with running water, and medicine cabinet.

Firemen.—The New Jersey Firemen's Home at Boonton is sponsored by the New Jersey State Firemen's Association, but is supported by the State. It admits only indigent men who have served as firemen for seven years. There is no entrance fee. The home can accommodate 100, but the number in residence averages 55. All medical service is furnished and the home has a resident physician.

The Firemen's Home of New York is open only to volunteer firemen of five years' service. It also has no entrance fee. It is supported by the income from its endowment and from a State tax on premiums on policies of foreign fire insurance companies.

The home buildings and grounds occupy a tract of more than 180 acres of land in the Catskills, at Hudson, N. Y. The present value is estimated as \$1,749,673. Some 150 men can be accommodated.

² A picture of this home was given in the April, 1929, Review.

All medical service is furnished and there is a 3-ward infirmary, with nurse and two orderlies.

One of the features of this home is the building which forms a museum for fire-fighting apparatus and trophies of early days. The home has also a farm which supplies the vegetables and fruit consumed in the institution; a herd of cattle, poultry, and other farm stock.

Ministers.—Only two of the ministers' homes were visited. One of these, the John G. Mercer Home, at Ambler, Pa., has already been mentioned. It has been closed for several years, but it is expected that it will be opened again in the near future. This home occupies a lovely old homestead on a hill overlooking the countryside for miles around, and the place is beautified with trees and shrubs. This home accepts only Presbyterian ministers.

The second home, the George Nugent Home for Baptists, is located in the Germantown district of Philadelphia. It accepts Baptist ministers (from anywhere in the United States), their wives and widows. There is an entrance fee of \$100, but in practice applicants who are unable to pay the fee are given preference over those with some means. The home can accommodate 30 persons.

As this is one of the older buildings, the rooms and halls are large and the ceilings high. The whole place is attractive and well kept. This is a very comfortable and homelike place, and the matron goes to no little trouble to insure the comfort and happiness of the residents.

All medical service and hospital care (including operations) are furnished by the home. Burial is also furnished in case the deceased or friends have no family plot. Guests needing clothing are given an order upon a down-town store, to which they go and make their own selection.

Music teachers.—The Presser Home for Retired Music Teachers was founded by a Philadelphian who had himself been a music teacher and publisher. It is open to persons of both sexes, but not to married couples unless both had been music teachers in the United States for 25 years. The entrance fee is \$400.

The home occupies a 3-story building in the Germantown district of Philadelphia and adjoins the former Presser residence. It is most tastefully furnished and its library was one of the most attractive libraries found in the homes visited. The woodwork and walls of this room are ivory and the carpet and upholstery of deep blue. An enormous bay window fills one side of the room and a French door leads out upon a terrace above a lovely garden.

Each guest has a private room which he or she may furnish; in fact the home rather encourages the practice on the ground that old people are happier among their own belongings.

Medical and nursing service are furnished, and the second floor of one wing is devoted to infirmary purposes.

Seamen.—The two homes for seamen who have served on ships of the mercantile marine service are located respectively at Quincy, Mass., and New Brighton, Staten Island, N. Y. The "Snug Harbor" at Quincy is a small home accommodating only 37 men, while that at Staten Island can accommodate some 875 men. Only the latter one was visited.

This institution was founded by a resident of New York City. His will, drawn up June 1, 1801, by Alexander Hamilton, left his

entire estate for the establishment of a home for "aged, decrepit, and worn-out sailors," to be known as the Sailors' Snug Harbor. The estate consisted mainly of a farm of about 20 acres on what is now, roughly, the area bounded by Fourth and Fifth Avenues and Sixth and Tenth Streets, New York City.

Litigation delayed the establishment of the home. In 1831, however, the present site was purchased. The first building was erected in 1831-32. During the year following 50 sailors were admitted, and since then more than 6,000 seamen have received care there.

The grounds cover some 150 acres overlooking Kill van Kull. There are some 30 buildings on the grounds. Eight of these are dormitories, which are connected by corridors lined with reading desks. There is also a 400-bed hospital. There are two church buildings on the grounds, the older of which is used for funerals and mid-week services. The other is a beautiful building which is a replica of a famous chapel in London and is finished in Italian marble. It contains a large pipe organ. Near this chapel is a large residence in which the resident chaplain of the home lives.

Another building is given over to recreational purposes. It contains a theater seating 800 persons, where motion pictures are shown twice a week, entertainments, and even an occasional stage play from New York City. There are also a smoking room, two reading rooms, each of which has a big open fireplace, 5 billiard tables and tables for cards, dominoes, etc.

There is a large library in one of the dormitory wings, which is a branch of the New York Public Library. New books are obtained every three months. A periodical room contains the eastern morning and afternoon papers.

The kitchen of the institution is equipped with all the labor-saving devices, these being very necessary in an institution of this size. Among other things the home has a pancake machine which automatically spreads and cooks 100 cakes a minute.

Other homes.—The trade-union homes (for carpenters, conductors, printers, printing pressmen, and railroad employees) were described at length in the February, 1928, issue of the *Labor Review* and the description therefore will not be repeated here.

Labor Legislation in Cuba and Certain Central American Countries

By MOISÉS POBLETE TRONCOSO

IN THE Republics of the Caribbean Sea, Cuba, Guatemala, Nicaragua, Salvador, and Costa Rica, considerable progress in social legislation has been and is being made. That these countries have not attained a greater development is due to their limited industrial expansion. Economic activity in Central America is concentrated on agricultural undertakings—production of coffee, sugar, fruit, etc. There is also some mining.

Cuba

OF THE COUNTRIES under discussion, Cuba has the most advanced social legislation.

Labor Laws

THE RIGHT OF association existed in Cuba even before the State became independent, being established by decree of June 13, 1888. The Constitution of Cuba (1898) reproduced almost exactly the text of the earlier law on this subject. Mutual aid and social welfare societies, and producers', consumers', and credit cooperatives are also covered by the provision for the right of association as defined by the constitution.

No special law exists in Cuba to regulate the right of association. The penal laws determine for what offenses in this connection persons may be committed.

Cuba has no special legislation concerning strikes. The Penal Code, however, in article 567, rules that "those who combine to increase the cost of living or wages or even in order to reduce them improperly will be liable," etc. In the author's opinion, this provision has for its primary object the elimination of the right to strike. It should be noted, however, that article 268 of the Penal Code provides indirectly for the punishment of strikes on farms, declaring that "those who disturb the public peace in order to create a prejudice against any individual shall be punished." The same penalty is provided for persons who cause trouble or who seriously attempt to disturb the order on farms by unwillingness to work, by disobeying, or by resisting the persons in charge of the management or administration.

The law of June 10, 1924, established a conciliation commission for the settlement of industrial disputes.

Labor contracts are not covered by any special law. The provisions of the Civil Code (article 1254) deal with the conclusion, application, validity, and interpretation of such contracts. The provisions relating to "hiring of services" have special application.

Article 1924 of the Civil Code establishes the preferential right of the workers to the payment of their wages.

With regard to salaried workers no special law is in force, but articles 299 and 302 of the Code of Commerce are applicable to them.

The Civil Code contains (article 584), regulations applicable to employees in domestic service.

The first special law on wages passed by Cuba is that of June 23, 1909, which provides for payment in cash only.

The law of January 26, 1909, established the 8-hour day for wage earners and salaried employees of the State, with the exception of foremen, mechanics, chauffeurs, cart drivers, etc.

Weekly rest was established by the law of May 4, 1910, which provides compulsory closing of commercial and industrial establishments on Sundays with some exceptions.

Compensation for industrial accidents was contemplated by Cuba in the law of June 12, 1916, which established the principle of occupational risks. This law also specifies the safety conditions to be maintained in industrial establishments.

Work by women is regulated by the law of May 23, 1922. The order of November 18, 1925, makes it obligatory for employers in commercial establishments to place a seat at the disposal of each woman employee and provides for two periods of one-half hour each, daily, for mothers to nurse their infants.

A law was passed in Cuba on October 11, 1923, creating a general retirement fund and pensions for salaried workers and wage earners of railroads and street railways, as well as of other public service companies, societies, or enterprises. Another law, that of June 20, 1919, deals with the retirement of public officers and employees of the State, Provinces, and cities.

The law of July 18, 1910, authorized the State to construct houses for workers and to furnish up to \$1,300,000 to build 2,000 houses for Cuban workers who are fathers of families and have a record of good conduct.

Department of Labor

THE LAW OF January 26, 1909, created the Ministry of Agriculture, Commerce, and Labor. The division of immigration and labor of this ministry has charge of all questions relating to labor problems.

Labor Movement

THE LABOR MOVEMENT is rather important in Cuba. A great number of labor unions exist in the various industries, but there is no one central organization to unify the activities of organized workers.

The following organizations should be noted: Hermandad Ferroviaria, an organization of railway workers which is divided into six sections and has a combined membership of 1,500.

Tobacco workers are organized into numerous societies, of which the principal one is the Federation of Tobacco Workers of Havana.

Society of Tobacco Sorters (*Sociedad de escogedores de tabaco*).

Society of Cigar Workers (*Sociedad de cigarreros*), Havana.

Society of Tobacco Workers (*Sociedad de torcedores de tabaco*).

Society of Tobacco Clerks (*Sociedad de dependientes del ramo de tabacos*), which has syndicalist tendencies.

Society of Tobacco Stemmers (*Gremio de despalilladores de tabaco*), with a membership of women only.

Society of Tobacco Roasters and Selectors (*Sociedad de fileteadores y escogedores de tabacos*), made up of cigar factory employees engaged in sorting and packing.

Federation of Wood Workers, affiliated with the International Federation of Wood Workers of Amsterdam. This federation includes eight labor organizations which recently created the Cuban Federation of Labor. It is also affiliated with the American Federation of Labor.

National Union of Linotype Operators.

Typographers' Union.

Society of Coffee Trade Employees.

Street Car Conductors' Union.

Federation of Hotel and Restaurant Employees.

Federation of Dock Workers.

Marine Workers' Union.

Federation of Graphic Art Workers.

A movement is under way to create a central labor organization to be affiliated with the Internationale at Amsterdam.

Organization of salaried workers.—Organizations of salaried workers in Cuba are perhaps the most interesting of all such organizations in Latin America. The greatest number were organized by members of the Spanish colony or their descendants. The following should be mentioned:

The Association of Commercial Employees, with a membership of about 42,000, has a savings fund, a retirement fund, and a convalescent home.

The Asturian Center (*Centro Asturiana*), with 72,000 members, has a bank, a savings fund, a large school with 1,400 students where special commercial courses are given, etc., a city hospital, medical service, laboratories, clinics, sanitariums, and homes for the aged, etc. Its headquarters are in a palace, which cost 25,000,000 Swiss francs.

The Galician Center (*Centro Gallego*), with 60,000 members, has practically the same features as the preceding organization.

The Balearic Center (*Centro Balear*).

The Catalanian Center (*Centro Catalan*).

The Andalusian Center (*Centro Andaluz*).

The Basque Center (*Centro Vasco*).

Guatemala

THE REPUBLIC OF Guatemala covers about 48,290 square miles and has a population of 2,500,000, of whom 60 per cent are natives. Guatemala is essentially an agricultural country, coffee raising being the chief industry. Sugar and bananas are other products of importance, while other agricultural enterprises are maize growing and cattle raising. The country also produces rubber. Among the manufacturing establishments are paper and cotton mills at Quezaltenango and some bag and rope factories. There are also cement and tobacco plants.

Labor Conditions

THE CHARACTER of the labor problems in Guatemala is determined to a considerable extent by the existence of a largely native population, the lack of industrial development, and the dominant agricultural trend of the country's activities.

For some time the Government has devoted itself to improving working conditions. An important legislative decree, No. 1385 of May 20, 1925, ratified the agreement reached at Washington on February 7, 1923, between Guatemala, Salvador, Honduras, Nicaragua, and Costa Rica. The objective of this agreement was the unification of labor legislation of Central America. This international treaty had the same legal structure and the same social purposes as treaties existing between certain countries in Europe to protect their nationals in the contracting countries. Examples of this type of treaty are those made by Argentina with Italy and Spain for the purpose of protecting, by the workmen's compensation laws, the workers of the signatory countries.

The international treaty between the Republics of Central America has certain characteristics worthy of mention. These characteristics are discussed under two heads: 1. Protection of a general nature to be accorded by the signatory Governments; 2. Obligation of the respective States to enact social legislation in certain fields.

Protection of a general nature.—1. The treaty provides for the abolition of compulsory labor, which in Central America has for a long time been almost like slavery, and, therefore, under the treaty, no owner of a farm or industrial enterprise shall force the Indians to work.

2. The employment of minors under 15 years of age during school hours is forbidden unless such minors have completed their compulsory primary education. The work of minors under 12 years of age in factories or industrial establishments is also prohibited.

3. Sunday work in factories and workshops is not allowed except under unusual conditions.

4. Night work by women and children under 15 years of age is prohibited.

5. The hiring of laborers to work in another country without a preliminary contract is not permitted.

Obligation of the States to enact social legislation.—Under the treaty provision for social legislation, States should:

1. Establish compulsory insurance for: (a) Maternity (four weeks before and six weeks after childbirth, provided the mother refrains from work which "might impair her own health or that of her child"); (b) Disability and permanent or temporary incapacity for work;

2. Establish a life-insurance system for workers;

3. Encourage the creation and development of associations composed of both employers and employees;

4. Encourage the formation of cooperative societies of wage earners and agricultural workers;

5. Encourage and undertake the construction of sanitary dwellings for workers;

6. Establish State loan banks;

7. Encourage thrift;

8. Regulate the work of women and minors in order to protect their health and to assure their physical development;

9. Pass laws for the compensation of industrial accidents, determining the responsibility of employers and fixing the amounts to be paid.

The treaty also provides for the establishment of employment offices.

Application of treaty.—The provisions of the treaty are also applicable to commercial employees and to those in agricultural undertakings who do not earn over 2,000 Swiss francs per annum.

Compulsory Labor

As already mentioned, compulsory labor existed in Guatemala even after the country became independent. Such labor was Indian labor, chiefly, and for such work a miserable wage was paid. Frequently the worker received only his food. Compulsory labor had been regulated under the law of April 3, 1877, but some years later, the Government, by decree No. 471 of October 23, 1893, abolished compulsory labor beginning March 15, 1894. According to this

decree, which marks the beginning of the emancipation of the natives in the country, "the Government of the Republic has been created to maintain its inhabitants in the integrity of their rights, liberty, equality, and security of both their persons and their property. Compulsory labor, particularly on farms, which up to the present time has been imposed on the natives, who constitute the majority of the population, is contrary to the principle of liberty established by the constitution. One of the objects that the Government has never lost sight of is the duty of emancipating the Indians from their miserable condition and of raising them to the cultural level of their fellow citizens in order that they may enjoy the benefits of civilization."

Labor Laws

IN SPITE OF THE above-mentioned provisions the condition of the natives showed little change, and the Government enacted a new law for their protection, known as the "labor law of April 26, 1894." This law, which is also intended to protect agricultural labor, establishes and completes the regulation of labor contracts. It prescribes that employers shall fix the terms of a contract in writing, shall note them in a book and deliver to each worker a work record in which the provisions of the contract, the duration of employment, wages, etc., are set forth. The law also provides that employers shall furnish their workers proper lodging and suitable food, as well as necessary medicines and medical attention for themselves and their families in case of illness.

The law emphatically prohibits Government representatives and employers to constrain or hire workers against their will.

Notwithstanding all the steps taken by the Government, the abuses against the natives continued and the Government was obliged to resort to other administrative and legislative measures to protect agricultural workers and natives. The first of these new decrees, No. 667 of February 21, 1906, provided for the nullification of agreements concluded between farm owners or managers to exchange or sell laborers, a custom which, according to the decree, is criminal and an outrage against a human being. This decree became law on April 23, 1906. Among the other governmental provisions for the complete emancipation of natives and agricultural workers was the decree of July 20, 1923, which regulates anew conditions under which labor contracts may be made by employers and "mozos" (young Indians) who are engaged to work in industrial and agricultural enterprises outside of Guatemala.

A decree of the same date established minimum wages. Various subsequent decrees have set wage minima, among them that of April 30, 1926 (No. 1434), designated the "labor law," which regulates labor contracts and prohibits the hiring of workers for more than a year. The same measure determines the method of fixing wages, provides for an 8-hour day and a 48-hour week, and weekly rest; forbids the employment in industry or commerce of minors under 15 years of age; prohibits the engagement of minors under 17 in night work and in unhealthful and dangerous work; provides for compulsory rest of pregnant women four weeks before and five weeks after childbirth, and that employers shall pay 50 per cent of the wages of

these women during this period and hold their positions open for them; and creates boards of conciliation and arbitration for the settlement of collective labor disputes. This law is among the most complete and important social laws of Central America. The provision fixing the minimum age of employment at 15 years is particularly progressive.

Decree No. 669 of November 21, 1906 provided for compensation for industrial accidents. This decree, known as "the law for the protection of labor", was among the first measures promulgated in Latin America to protect workers who were injured in industrial accidents and covers not only industrial workers and those engaged in transportation but also agricultural labor. The decree established the following system for raising the necessary capital for the insurance service. Relief funds are charged with the payment of compensation, the cost of which is met by weekly assessments, two-thirds being paid by workers and the other third by employers. The same law makes it compulsory for employers to adopt whatever measures are necessary to prevent accidents and to improve sanitary conditions in factories.

Guatemala also has a law governing work in bakeries (May 29, 1909, amended November 14, 1927). This law establishes conditions under which labor contracts may be made (especially that they be in writing) between employers and employees and provides for an 8-hour day, payment of wages during the illness of a worker, and compensation for industrial accidents.

Guatemala is one of the Latin-American countries that has taken measures to protect the domestic labor market from foreign competition. The law of April 9, 1926 (No. 1367), provides that all undertakings, commercial, industrial, or agricultural, established or desiring to become established in the country have 75 per cent of their workers or employees of native birth. It was not until February 29, 1928, that a decree was passed establishing the 8-hour day for industrial, commercial, and agricultural employees.

Department of Labor

THE LAW OF April 30, 1926, created a national department of labor. This department is under the Ministry of Public Works (*Ministerio de Fomento*). Under article 41 of this law the chief functions of the department are: (1) To intervene in order to settle controversies of a collective character which may arise between employers and employees; (2) to enforce strictly the laws, regulations, etc., passed to establish harmonious relations between employers and employees; (3) to inspect sanitary and safety conditions of workers in industrial establishments; (4) to organize the statistical service and to study and propose to the Government necessary measures for a better organization of labor.

Labor Movement

THE LABOR MOVEMENT in Guatemala is perhaps the most important in Central America. The principal central organization is the Federation of Labor of Guatemala for the legal protection of labor. The Government officially recognized the federation by a decree of October 5, 1927. For some years efforts have been made to effect a central

labor organization, but the labor movement itself has not been strong enough, for two outstanding reasons: (1) Guatemala is, as has been said, an agricultural country, with large farms, scattered population centers, and restricted means of communication; (2) the native population, which constitutes 60 per cent of the total, has almost no idea of organization. As a result of these circumstances the labor organizations tend to mutualism rather than trade-unionism.

The Federation of Labor, which has a membership of nearly 6,000, has its headquarters in the capital. It includes the following affiliated organizations:

Building Workers Center (*Centro obrero de albaniles*).

Center of "Force and Action" (*Centro fuerza y accion*).

Builders' Commercial Union (*Gremial comercial de albaniles*).

Marimbistas Trade-union (*Sindicato de marimbistas*).

Dental Mechanics' Union (*Sindicato de dentistas Mecanicos*).

International Union of Workers (*Union internacional de trabajadores*).

Gutenberg Society of Typographers (*Sociedad de tipografos Gutenberg*).

Branch of "Force and Action," San Pedrito (*Sucursal de fuerza y accion, San Pedrito*).

The constitution of the federation provides that its efforts should be directed mainly: (1) Toward improving the moral, economic, and intellectual conditions of the workers of the Republic, and encouraging labor organization not only of factory workers but also of agricultural workers and of women in their various activities; (2) toward the growth of the personality of workers and the designation of delegates to workers' congresses, both national and international; (3) toward the unity of all the labor elements of the Republic; (4) toward the putting forth of every possible effort to place members in public office, so that the enforcement of labor legislation may be under surveillance.

The Federation of Labor of Guatemala sanctions the necessity of supplying workers with cards of identification as a proof of their ability and good character. The attitude of the organization on this matter is opposite to that shown for several years past by workers' organizations in some other countries, where a card of identification is considered a disgrace. The constitution of the federation also declares that educational facilities should be afforded workers through conferences, schools, etc.

The Labor Federation of Guatemala is directed by a council composed of four delegates, members of affiliated societies. The council, in turn, has an executive committee composed of a secretary general, a secretary of external relations, a secretary of internal affairs, a financial secretary, a librarian, a treasurer, and a director of debates. To become a member of the federation, a society must nominate its delegates and pay 5 centimes for each federated member. The affiliated society must send in its annual balance and a memorandum. Elections take place in April of each year.

The following groups have recently joined the federation:

The Future of Guatemalan Workers (*El Porvenir de los Obreros de Guatemala*).

Mutual Crusade Society (*Sociedad Cruzada Mutualista*).

Society of Printers (*Sociedad de tipografos Gutenberg*).

New Era Society (*Sociedad "La Nueva Era."*).

Mutual Society of Young People (*Sociedad mutualista de la niñez*).

Society of Friends of the 26th of October (*Sociedad de amigos 26 de Octubre*).

Chauffeurs' Union (*Sindicato de chauffeurs*).

Unified Workers (*Unificacion obrera*).

Fraternal Society of Barbers (*Sociedad fraternal de barberos*).

Concordia Rural Society (*Sociedad rural "La Concordia"*).

Stage Hands and Theater Helpers' Union (*Sindicato de tramoyistas y utileros de teatro*).

Guatemala also has a separate communist organization which is composed of a small group of workers and which has not been successful. The Government has taken energetic measures against this organization, and the greater number of industrial workers do not wish to have any connection with it.

Salaried workers.—In Guatemala there is also an interesting movement among associations of commercial employees. Salaried workers have organized unions of employees of the Republic of Guatemala. The Government has given them legal recognition and has approved their constitutions and by-laws by decree of August 26, 1925. The objects of these unions are as follows:

1. To secure the rights of all members of the association.
2. To see that the provisions as to the 8-hour day and the weekly rest period are enforced.
3. To see that the law requiring that 75 per cent of the employees in any enterprise should be native is enforced.
4. To offer arbitration in disputes between employers and employees.
5. To do everything possible to find work for the unemployed, particularly through the labor exchange organized by the unions themselves.

To become a member of the organization, an applicant must be a Guatemalan or Central American 18 years old, be employed, and pay an initiation fee of 2 pesos and monthly dues that are to be fixed each year.

The organization is directed by an office directorate elected by the general assembly. The directorate is composed of a president, two vice presidents, and nine members. In 1928 the membership of the organization was about 1,200.

This organization has its own building, a theater, and a night school. Its activities cover a wide range both culturally and in the field of social work.

Nicaragua

NICARAGUA HAS AN area of 49,200 square miles and a population of 638,619. The principal economic activity of the country is agriculture, but it also has great unexploited mineral resources, among which are gold mines. The principal agricultural products are coffee, bananas, sugar, wood, and cocoa.

Labor Laws

NICARAGUA HAVING DEVELOPED almost wholly as an agricultural country, its protective labor legislation is rather limited in scope. As in all Central American countries, laws and regulations requiring

agricultural laborers to work during the periods for which they were engaged have existed for a long time. The law of March 13, 1883, empowered the State to prosecute and imprison laborers who ran away.

Under a law of 1894 agricultural employers were obliged to make a sort of labor contract with the workers they engaged. Laborers wishing to work had to sign a list in the presence of the agricultural judge, this list being kept by him, and the labor contract also had to be signed before the judge.

For some years the right to pursue runaway workers remained in force. On February 28, 1898, however, the earlier provisions of the law as to lists and the right of pursuit were repealed, and the work record or book was instituted to insure the carrying out of agreements.

The law of April 16, 1904, set forth the principal clauses required in labor agreements for agricultural workers. The law of February 19, 1919, again provided for agricultural judges, charged with enforcing the contracts of agricultural workers. This law stipulated that employers who did not pay their employees on time were liable to fine. It prohibited agricultural employers from engaging laborers who were working for another employer and reestablished the list of workers to be signed before an agricultural judge. To be hired, a laborer had to present his work record or book, which must show that he had finished his work for his former employer in the regular way. Workers violating the terms of the contract were subject to punishment by imprisonment and a fine of half a dollar.

The law of January 31, 1923, should also be noted. This measure was passed to protect workers leaving Nicaragua to labor in neighboring countries and provides that persons recruiting labor shall make a contract sufficiently specific to insure the payment of wages and proper living conditions to the workers. Persons recruiting labor are also required to secure advance authorization from the Government in order to engage emigrant workers.

Two bills for the compensation of industrial accidents have been presented to Congress. The first was introduced in 1922 and approved by the Senate. This proposed measure established the principle of occupational risks. The second bill was introduced in 1927.

Labor Movement

THE LABOR MOVEMENT has made little progress in Nicaragua. There is a central organization known as the Workers' Organization of Nicaragua (*Obrerismo organizado de Nicaragua*). Created March 15, 1923, this union has for its objective the organization of the workers throughout Central America, and through this means to bring about solidarity among the workers of the country. According to its constitution it can act only in conformity with the laws of each State in Central America and subject to their authority. Its fundamental principles are as follows:

(a) Federation of all labor and intellectual associations in order to constitute a single central body.

(b) Thrift as a means leading to individual and collective independence.

(c) Workers' education, as an indispensable means of bringing about complete functioning of the democracy and for the attainment of a more advanced civilization.

[516]

(d) Association and cooperation in so far as organic laws and individual independence allow.

(e) Work as the foundation of all progress and all moral principle.

(f) The nationalization of land.

(g) Education, as the primary duty of the State.

(h) Nationalization of instruction and a policy directed toward the practical adaptation of such instruction to the social and economic needs of Central America.

(i) Subdivision of land, to do away with large holdings.

This organization also proclaims the economic equality of capital and labor and the necessity of working for the independence of the natives. The regulations of the organization also provide for the formation of local sections in all parts of the country.

The central organization is composed of an annual assembly, a general executive council, local executive councils, and committees which may be created under its laws and regulations.

The assembly is made up of delegates of local sections. Each section may nominate one and large cities two.

The general executive council is made up of five members and five alternates, the members being a president, a secretary of the organization, an economic secretary, a secretary of instruction, and a secretary of social relations.

In accordance with its constitution there has been established in each municipality of Nicaragua a local section directed by a council composed of a president, a vice president, a secretary, a vice secretary, and a treasurer, as well as four members, who are elected or appointed for two years. Each local section is required to contribute to the central organization, the amount being fixed by the annual general assembly. The constitution prescribes the organization of workers' cooperative societies preceding the organization of branches throughout the country, and also provides for the creation of workmen's insurance societies.

This organization should work to have its representatives in the Congress, as well as in the administrative branch of the Government.

To become a member, it is sufficient to make application to a regional organization and pay the dues prescribed in the constitution. Fifteen regional groups are at present in existence, with a membership of about 4,000.

This labor organization publishes a journal known as the "Evolution of the Worker" (*La Evolucion Obrera*) in which propaganda articles frequently appear.

In each section night courses are given to workers who wish to educate themselves. At present the activities of the organization are outside the field of politics.

The communistic elements have for some time been trying to become a part of the workers' organization but have not been successful.

Salvador

SALVADOR, THE SMALLEST of all the Central-American Republics, has an area of only 13,176 square miles. Its population, however, is fairly dense, numbering 1,634,000 persons, of whom 10 per cent are native. The principal industry is agriculture and the most important product is coffee. Sugar is also an outstanding crop, and

other important products are cotton, hemp, maize, rice, and cattle. Gold, copper, lead, zinc, and mercury are mined in small quantities. There are also small local industries, such as the manufacture of rope, shoes, and cigars.

Labor Laws

LABOR PROBLEMS IN SALVADOR, as in other Central American countries, have a special character, as industry is only slightly developed and the greater part of the country's activity is directed toward agriculture. Nevertheless, the Republic has some very important social laws.

Attention should be called first to the decree of May 26, 1925, which ratified the convention of February 7, 1923, between various Central American Republics to unify their labor legislation. The most important law in force in Salvador is that of May 11, 1911 (promulgated September 7, 1911), for the compensation of industrial accidents. This act establishes the responsibility of employers for accidents sustained by employees when at work. To facilitate the operation of the law a decree was passed July 15, 1927, creating a board of conciliation in each Department to settle all difficulties which might arise.

The right of association is recognized by the constitution. The Government passed a decree on October 28, 1927, to establish a register of the labor organizations permitted in the Republic.

Salvador is the only country of Central America which regulates labor contracts between employers and domestic servants (decrees of August 23, 1920, and July 8, 1924). A special law of May 10, 1926, regulates the work of commercial employees, establishing an 8-hour day for men and a 7-hour day for women, and providing for a weekly rest period, annual leave with pay, and a pension fund.

Salvador, like some other Latin-American countries, has passed a law making it obligatory upon employers to have 80 per cent of their total labor force made up of native workers.

On March 2, 1927, the Department of Labor was created.

The problem of houses for workers, which is so acute in Europe, is also of considerable importance in America. In Salvador housing has been provided for under the law of June 11, 1926, authorizing corporations to construct houses at moderate prices. The capital so invested is exempt from State taxes for a period of 25 years and all the construction materials are free from duty.

A law has also been passed providing that every estate having more than 20 farm laborers who do not know how to read must establish an elementary school.

Labor Movement

THE LABOR MOVEMENT is in its early stages in Salvador. In 1914 the central organization, the Federation of Labor, was created. The constitution and by-laws of this organization were adopted December 12, 1919.

The Federation of Labor adopted the principles voted on by the first session of the Central American Congress of Labor which met at Salvador on November 5, 1911. The constitution and by-laws of the federation established its obligation to do everything possible to improve the social and economic welfare of the workers and to work to abolish individual and collective servitude of labor. The activities of

the federation must develop in harmony with the civil government of the country. The federation is also pledged to work for social legislation inspired by cooperative principles and social justice. Members are forbidden to take an active part in politics or religion.

The federation is made up of societies which have sought admission and of the different sections created in the Republic and is directed by an administrative council composed of representatives of all the labor organizations. This council includes a president, a vice president, a technical director, four counselors, a secretary, and a treasurer. It is provided that a general assembly meet each year to elect members of the council and to decide on policies and the work to be accomplished.

At present the federation is composed of the following societies with a combined membership of approximately 3,000:

Workers' Society of Salvador (*Sociedad de obreros de El Salvador*).

Society of Quezalevat (*Sociedad de Quezalevat*).

Cooperative Society of Tailors (*Sociedad cooperativa de sastres*).

Carpenters' Society of Salvador (*Sociedad de carpinteros de El Salvador*).

Cooperative Society of Shoemakers (*Sociedad cooperativa de zapateros*).

In recent years the federation has developed important cultural and cooperative activities. It has a night school, and also a theater, where educational meetings are often held.

Salvador has an organization of typographical workers (*Alianza tipografica*), founded October 4, 1923, and officially recognized by the Government. The purpose of this organization is to bring together all typographical workers, to develop among them a spirit of association, protection, and cooperation and to work for their moral, social, and economic betterment. This society is directed by an executive committee composed of a president, a secretary, and a treasurer. The members pay 50 centimes a month. The highest body is the general assembly, which meets at least once a year to elect the members of the executive committee.

The Regional Federation of Workers of the East (*Federacion regional de trabajadores del oriente*) is communistic in tendency. It has about 300 members.

Commercial workers have an organization created August 17, 1910, which was recognized by the Government January 5, 1920, and which has a membership of about 1,500. The purpose of the association is to improve the intellectual, moral, social, and economic conditions of members. The creation of cooperatives and savings funds and the acquisition of land for the members are contemplated by the constitution and by-laws.

To become a member, a person must be employed, be of good conduct, and pay monthly dues of 2 francs (Swiss). The society is directed by an executive committee composed of a president, vice president, counselor, treasurer, and secretary.

A general assembly must be held twice a year. The business of the first meeting is the election of the members of the executive committee.

In case of sickness, members of the society are entitled to medical care and medicine, and to a monetary allowance. The society has a consumers' cooperative, and owns a large building containing a theater and club.

Costa Rica

THE REPUBLIC OF Costa Rica has an area of about 23,000 square miles. Its population of 520,000 is almost entirely of Spanish origin, with some Indian elements.

The principal industry, as in all Central America, is agriculture. The chief products are coffee and fruit. The raising of bananas is also an important activity. The manufacturing industry is little developed. There are, however, some distilleries and cigar factories.

Labor Laws

DECREE No. 100 of August 16, 1920, established the 8-hour day.

One of the most important laws and one of the most progressive in Central America is that passed on January 31, 1925, for the compensation of industrial accidents and occupational diseases. Its provisions cover fishermen, those employed in transportation, stores and offices, theatrical enterprises, and various public amusements, and also applies to workers employed in agriculture, cattle breeding, horticulture, etc., and to firemen and police.

This law created the National Insurance Bank in order to provide compulsory accident insurance. This bank, which has functioned very successfully since 1926, has a monopoly of the insurance against industrial accidents for the whole country.

The decree of January 17, 1927, established special and detailed regulations for the enforcement of the law as amended by the act of August 24, 1926.

Conditions of work in bakeries were regulated by decree of January 27, 1925, which covers sanitation in bakeries, including the health of the personnel.

The law of June 11, 1927, created a special Ministry of Hygiene and Public Health.

There are two Costa Rican laws on social insurance. The first, that of October 11, 1923, No. 142, established a system of retirement pensions for teachers, and by decree of May 11, 1927, free medical care was granted such employees. The second, that of August 9, 1926, No. 73, provides retirement pensions for telegraph and telephone employees.

Labor Movement

THE DEVELOPMENT OF Costa Rica being almost entirely along agricultural lines, the labor movement is not strong. Workers, however, have begun to organize. Since 1926 there has been a federation of labor in this Republic. A new party, known as the Reformist Party, has recently been created for the improvement of the workers' living conditions and for other purposes.

There is only one labor union in the capital, that of the bakery workers.

INDUSTRIAL AND LABOR CONDITIONS

Situation in the Women's Garment Trades ¹

ADVERSE conditions in the women's garment trades have been brought before the public as a result of a strike affecting 30,000 cloak and suit workers in New York City that was settled on July 16 and a threatened general strike that will take 80,000 workers on women's dresses out of the shops if plans now contemplated are carried through.

International Ladies' Garment Workers' Union

WORKERS on women's clothes are organized under the leadership of the International Ladies' Garment Workers' Union, a union affiliated with the American Federation of Labor, and having a membership of 87,000 persons in 104 local branches.²

The trades represented in the International Ladies' Garment Workers' Union number 14, of which the basic trades are: (1) Cloak, suit and skirt; (2) dress and waist; (3) kimono, house dress, and petticoat; (4) children's and infants' dresses; and (5) white goods or underwear. Supplementary trades are: (1) Custom dressmaking and (2) tailoring. Subsidiary trades are: (1) Swiss embroidery; (2) bonnaz embroidery; (3) button making; and (4) tucking, pleating, and hemstitching. Allied trades are: (1) Corset; (2) waterproof garment; and (3) women's neckwear.

The union is governed by a general executive board composed of president, secretary-treasurer, and 15 vice presidents, 9 of whom are required to be residents of New York City.

Local matters, such as handling complaints, supervising union shops and organizing nonunion shops, are adjusted by joint boards of control. A joint board of control is set up in any district where two or more locals in one branch of a trade exist, and is composed of an equal number of representatives of each local.

Importance of the Trade

DOMESTIC manufacture of women's clothing is largely localized in eight cities, namely: New York, Chicago, Philadelphia, Cleveland, Boston, St. Louis, Los Angeles, and Baltimore. The importance of these cities in value of products follows the order in which they are listed. This is an industry of first rank as regards value of product

¹Except where otherwise noted this article is based on data from the New York Times, issues of June 28, July 2, 10, 12, 14, 17, 21, Aug. 9, 13, 20, 1929; Daily News Record (New York), July 2, 15, 18, 1929; Women's Wear Daily, June 3, July 2, 11, 1929; Justice, May 10, June 21, July 19, 1929; Labor, July 13, 1929; and the Advance, July 26, 1929.

²See United States Bureau of Labor Statistics Bul. No. 420: Handbook of American Trade-Unions, pp. 123, 124.

and number of persons employed, as may be seen by the following table:

ESTABLISHMENTS, WAGE EARNERS, TOTAL WAGES, AND VALUE OF PRODUCTS
IN THE WOMEN'S CLOTHING INDUSTRY, 1927¹

[Data are for all factories (regular factories and contract shops)][°]

Section	Establishments		Wage earners (average for year)		Total wages		Value of products	
	Number	Per cent	Number	Per cent	Amount	Per cent	Amount	Per cent
New York City.....	5,352	70.5	84,377	54.6	\$141,395,367	66.9	\$1,145,612,504	76.7
All other cities.....	2,236	29.5	70,082	45.4	69,954,392	33.1	348,788,540	23.3
United States.....	7,588	100.0	154,459	100.0	211,349,759	100.0	1,494,401,044	100.0

¹ United States Bureau of the Census. Census of Manufactures. Women's clothing. Press release, May 20, 1929.

On the basis of census figures the average number of workers per establishment in New York City is 15.7 as compared with 31.3 in the trade outside this city. Thus in the chief center of women's clothing production the average shop employs only half as many workers as shops elsewhere. This low average for New York City reflects the existence of numerous small producing units. The union, having failed to enforce acceptable standards in these small shops, is striving, through resort to the strike, to raise the level of small shops and to do away with substandard shops.

Organization of the Trade

GARMENT manufacture began as a sweated industry. Standards were gradually raised, but the sweatshop has again become sufficiently prevalent to lead union officials to seek protection. At present clothes are being produced in: (1) "Inside shops," where the owner is responsible for purchase of raw material, design of clothing, actual cutting and sewing of garments, plant overhead, wages, management, and sale of finished garments; and (2) "outside shops," where the shop owner is responsible only for actual cutting and sewing, plant overhead, wages, and management. He is paid a flat rate per garment sewed. Raw material is usually delivered to the outside-shop owner on consignment from an inside shop or jobber, usually at a price higher than its value to prevent the outside-shop owner from selling finished goods to someone else. When garments are finished they are returned to the consignor and the outside-shop owner is paid for his work.

Outside shops where goods are sewed for inside shops are designated as "contract shops" and "social shops." In contract shops the proprietor, or contractor, hires as many garment workers as he needs at a fixed rate of pay; in social shops several garment workers act as coproprietors and share whatever money they may earn jointly.

An outside-shop proprietor doing sewing for a jobber is known as a "submanufacturer." The jobber maintains show rooms where he displays and sells the garments the materials for which he has bought and which he has had made up at a fixed price in the shop of a sub-

manufacturer. The submanufacturer may furnish designs and cut garments, or both may be done by the jobber. Shop costs must be met by a submanufacturer out of returns for goods sewed.

It is in these outside shops, among contractors and submanufacturers, that there is the most difficulty in enforcing proper labor standards. Some such shops are organized, and the union also has agreements with certain jobbers and inside shops whereby they consent to send out work only to such shops as operate under union conditions. Nevertheless, in large numbers of outside shops, where sanitary conditions are bad, hours are long, and wages are low, the union has no foothold.

Strike of Women's Cloak and Suit Workers in New York in July, 1929

THE RECENT strike of women's cloak and suit workers of New York, members of the International Ladies' Garment Workers' Union, was settled two weeks after the strike was called on July 2, 1929. Some 30,000 garment workers in the city were affected in the strike, which covered the entire cloak and suit trade in both union and nonunion shops. An early settlement was much desired by both sides, as the fall season in cloak and suit production normally opens late in July.³

The union deals with inside shops, jobbers, and contractors through their respective trade associations, but prior to the strike in July only a part of the total number of employers were members of such associations.

An agreement between the union and inside shops organized in the Industrial Council of Cloak, Suit, and Skirt Manufacturers (Inc.), signed in 1926 for a period of three years, expired on June 1, 1929. It was voted to continue the agreement for several days beyond that time in the hope that a settlement might be made, but long before the strike call was issued the press intimated that mutually acceptable terms could not be agreed upon. On June 13 the parties broke off negotiations. The exact time of the strike was withheld, however, to avoid the possibility of a lockout, it not being announced until July 2 when the strike went into effect.

Issues at Stake

The demands of the union are summarized in another section of this Review (p. 118). The New York World attributed the general strike in July to a desire for a complete reorganization of the women's garment trades. In an editorial it made the following statement:

The issues ostensibly include wage demands, limitation of the right to discharge, and an unemployment fund. But fundamentally the strike springs from the disorganization and debility of the industry and its main object is to reorganize and rehabilitate the whole trade.

John Hahn, executive director of the Garment Retailers' Association, took the same position, saying that the strike "is essentially for organization purposes, the union apparently believing that only through a stoppage can it check the growth of nonunion production."

³ United States Bureau of Labor Statistics Bul. No. 147: Wages and regularity of employment in the cloak, suit, and skirt industry (p. 17). Shows indexes of weekly pay rolls in 75 shops, for August, 1912, to July, 1913, based on the average weekly pay roll for the year as 100. During July the indexes were as follows: First week, 73.6; second week, 88.7; third week, 98.5; fourth week, 106.0; fifth week, 106.6.

One hundred and sixty-five employers in the Industrial Council, who represent inside shops with the highest standards in the trade, took exception to union action in directing a strike against them and particularly to rescinding the discharge clause. Their stand is indicated by a statement of I. Grossman, president of the Industrial Council:

Ample rights of reorganization are closely linked with the continued successful existence of Council firms. In competition with irresponsible producers who discharge workers and reorganize every day in the year, it is only fair that Council firms should have something of the same privilege open to them. To reduce the discharge percentage from 10 per cent, as demanded by the union, would work a hardship on our members, which would be costly. * * *

The firm which has made high-priced coats and, for example, wants to go into the manufacture of unlined summer silk coats can not do it and compete profitably with nonunionized coat firms.

The union replied through its president, Benjamin Schlesinger:

Our present struggle, as we have stated many times, is not against Industrial Council shops as such, but against all sweatshops and others causing demoralization in the trade. * * *

We are opposed to the sweatshop wherever it appears. Our notion of stabilizing the industry is not to permit the Industrial Council to reduce the level of their shops to the fly-by-night bootleg shop, which, by the way, certain Industrial Council manufacturers are fostering as their "outside shops," but to raise the substandard shop to the level of the Industrial Council, and both to a level higher than now exists in the industry. Though the Industrial Council employs only 6,500 workers, they set the standard for the industry. All agreements are based upon our agreement with the Industrial Council.

By refusing to modify the discharge clause to give some protection to shop chairmen and other loyal union men, the Industrial Council is responsible for the demoralization that now exists and thereby is giving aid and comfort to our mutual enemy, the unscrupulous manufacturer who profits from chaos and disorder and from a weak union.

Placing Responsibility for Conditions in the Trade

At a meeting between the Jobbers' Association and the International Ladies' Garment Workers' Union "the spokesmen of the union * * * largely blamed the jobbers for the demoralization now prevailing in the cloak industry, in that they destroy union standards by giving out work to nonunion shops, thereby promoting the growth of the sweating system. The union representatives declared that things could not go on as at present, and that the jobbers would be permitted to employ only such shops as hold certificates from the union."

Mr. Schlesinger in a later statement also places responsibility upon low-wage shops manufacturing for chain stores, declaring that "the sweatshop, which has again crept into the industry, is largely the result of chain-store competition in the cloak and suit industry." He asserted that the chain stores "patronize nonunion, substandard shops, and provide unfair competition for the jobbers. Just as the jobbers several years ago made inroads on the 'inside shops' so the chain stores have affected adversely the business of the jobbers."

A writer for the New York Times comments on the group system of buying by chain stores, as follows:

Eighteen months ago a new development began to make itself felt in a most serious way. Large chain stores, in virtual competition with jobbers, gave enormous orders direct to contractors. Small retailers banded together and

developed the system of group buying. The industry witnessed another shove downward on the path of depressed standards.

Style is said to be a factor in lowering standards under which much clothing is made. "With the spread of the moving-picture theaters to the smallest communities and the circulation of women's magazines * * * women * * * became style-conscious."

The same writer elaborates on the impracticability of dealers stocking up with goods when style changes become rapid, and adds:

Retailers held back from making large purchases. They filled their orders quickly from the well-stocked racks of the jobber. The larger the jobbing system the greater the uncontrolled or nonunion shops. The more nonunion shops there were the more desperate the inside-shop manufacturers became. * * * Thus nonunion production grew until it became possibly 75 per cent of production.

Settlement of the Strike

Cloak and suit manufacture constitutes a large share of women's clothing production in New York, and in view of the seriousness of a stoppage in this trade Governor Roosevelt and Mayor Walker early offered the services of the State and city, respectively, to bring about a meeting of the parties interested, looking toward a settlement of differences. The good offices of these officials were accepted, and negotiations followed at which the State was represented by Lieut. Gov. H. H. Lehman. The impartial chairman of the industry, Mr. Raymond V. Ingersoll, presided, and the union, the Industrial Council (inside shops), jobbers, and contractors were all represented. As a result of these negotiations an agreement was reached.

Terms of Agreement

The terms of the agreement, which will remain in force for three years, are here summarized. These terms provide that:

1. The union shall have the right to have its representatives visit the shops of the members of the council once in every season for the purpose of examining the union standing of the workers.

2. The Industrial Council will confine the manufacture of merchandise made for them to members of the American Association (contractors) exclusively. And the members of the American Association undertake to give preference to members of the Merchants' Association (jobbers) and members of the Industrial Council.

3. For the purpose of eliminating substandard and sweatshop conditions a commission shall be organized and charged with the duty of analyzing and investigating the many problems affecting this industry.

4. Active operation of the unemployment insurance fund shall be resumed as soon as unionization of the industry and the enforcement of uniform labor standards have reached a point at which the provisions for the payment of unemployment insurance contributions can be substantially enforced throughout the industry. The time for resumption shall be determined by the parties to the agreement or, if they fail to agree, by the impartial chairman.

5. A week's work shall consist of 40 hours in the first five days of the week.

6. During the two months preceding Easter Sunday and during September and October of each year four hours may be worked on Saturdays. Payment will be made at fixed overtime rates.

7. One year from the date of this agreement the union may apply to the impartial chairman to consider a modification of the wage schedules herein agreed to. After hearing both parties to the agreement the impartial chairman shall have the full power to make decisions, which shall be binding upon the parties.

8. All members of the council at the time of the execution of this agreement and persons, firms, and corporations becoming members subsequently shall be and continue liable for the term of the agreement, irrespective of whether said member shall cease to be a member of the said council prior to termination of the agreement.

9. No employer and no worker or group of workers shall have the right to modify or waive any provision of this agreement.

10. The union shall not enter into any agreement with any individual concern or association employing cutters and sample makers unless they operate a complete inside factory as herein defined.

11. The union agrees to secure agreement with independent employers whereby these employers will submit to supervision of the impartial chairman and of the commission herein provided for. All such independent employers shall deposit cash security for performance of the agreement on their part.

12. Up to the last agreement jobbers were responsible for five working-days' pay to employees of submanufacturers when the latter went into bankruptcy. Payment will now be made for seven days.

13. The employer agrees to pay yearly contributions, pro rata, for the expenses of maintaining a joint control commission.

14. Reorganization shall take place during the week ending the last Friday in June. Any worker displaced by such reorganization shall be replaced not later than on the 15th day of July, following such reorganization. Reorganization shall not be used as a means for reducing wages. Reorganization rights shall be exercised in June, 1930 and 1931. No reorganization shall take place in 1932 before or after expiration of the agreement.

15. If any discharged worker claims that discharge was due to the performance of his duties on behalf of the union, the union may request reinstatement of such worker through the impartial chairman, who shall hear both sides, ascertain the facts, and decide accordingly.

Gains Under the Strike Settlement

The employers and the union alike compromised in accepting the settlement, the major points of which are summarized above. Under the new agreement employers must: (1) Recognize the right of union officials to visit shops periodically, a concession the union has sought without success since 1910; (2) agree to deal only with unionized shops when they send work out to be sewed; (3) withdraw their demand for a 42-hour week; (4) withdraw their demand for Saturday work at regular wage rates; (5) withdraw their demand for piecework; and (6) submit to modifications of discharge and reorganization rights. The union accepts: (1) Postponement of resumption of the unemployment insurance system; (2) postponement of consideration of wage schedules; and (3) modifications of discharge and reorganization clauses less sweeping than were sought. This agreement is hailed by persons interested in the garment industry as a sound basis for future development.

Joint control commission.—Important among the gains to the industry through the settlement of the strike is the provision in the agreement establishing a joint control commission. This commission is to make investigations of issues in the trade and furnish exact knowledge on which to base action looking toward removal of dissatisfaction. The significance of the joint control commission is summed up by Mr. Schlesinger when he calls the commission "a material instrument by which we shall be able to translate good intentions into working facts." He also says:

Everyone must be impressed by the fact that for the first time in the history of the industry there has been a joint effort on the part of all factors to end the sweatshop system.

Mr. Ingersoll gave out a memorandum descriptive of the joint control commission, from which the following sections are quoted:

For the purpose of eliminating substandard and sweatshop conditions a joint committee or commission composed of an equal number of representatives of the parties hereto and all other organizations subject to the machinery herein established shall be organized and charged with the duty of checking up the production and abating the production of garments by nonunion or substandard channels and enforcing the observance of standards established by this agreement throughout the industry. * * * The committee or commission shall also make such statistical and fact finding investigations as may seem desirable.

The joint committee or commission finally provided for includes three citizens of New York City, not connected with the industry, who are appointees of the Governor of the State of New York.

Reorganization right.—Among the demands made by the union, limitation of the reorganization right bulked large. Three reorganizations were provided for in the agreement of 1926. In each reorganization 10 per cent of the employees in any shop might be dropped within a period of a month. The provision now shortens the reorganization period to one week and the number of reorganizations to two in the period during which the agreement remains in force. Justice, in a comment on reorganization, states:

It is quite obvious to everyone that in this respect the union has won a great deal. It is already a great gain that the workers in the shops will not have to experience the fear of losing their jobs every season, as has been the case heretofore.

Discharge.—Union officials have long sought to secure exemption of shop chairmen or other organization workers from discharge in the belief that such workers were particularly liable to dismissal because of their activities on behalf of their fellow union members. In negotiations up to the present the employer's right to hire and fire workers has consistently been upheld. A clause in the 1926 agreement forbidding unfair discrimination for union activity was open to various interpretations. The present clause is so worded that the union feels that any discharged shop chairman will be reinstated unless the employer can prove that the worker was discharged for reasons other than union activity.

Provisions favoring extension of union influence.—Heretofore, when the union has entered into agreements with employers through their respective trade associations (that is, with the inside shops, jobbers, and contractors), an employer member of any one of these associations, finding himself embarrassed by union demands, has been free to leave the association and become independent. The union

obtained what agreements it could with independents. Under the present settlement member shops of associations, such as for instance Industrial Council shops, are restrained from waiving the terms of the agreement during the life of that agreement regardless of whether they stay in the Industrial Council or drop out. Dovetailed with this provision for maintaining the agreement intact is a clause providing that agreements with independent shops shall be subject to supervision of the impartial chairman and the joint control commission. Thus the employer, whether he be independent or a member of the trade association in his particular branch of the trade, is subject to control. A writer for the New York Times discusses these features of the agreement as follows:

Formerly the independent who joined one of the three employers' associations was free to leave and become a nonunion employer when he wished. If the union was unable to reach him he went unpunished. Now the employer who joins an association agrees to be bound by the new contract for three years. * * *

The independent manufacturer, jobber, or contractor who, for reasons of his own, wishes to remain outside the fold may do so on deposit of cash security, etc. * * * As these terms tend to be more onerous than those exacted of associations' members, it is expected that the independents will join the organized factors.

By-products of Strike Settlement

Of no less interest than the actual terms of the settlement and the gains the industry enjoys under the new agreement are the effects the strike has had on employer organizations, the union, and union operations against the sweatshop.

Union membership increases.—Since the strike settlement, George W. Alger, chairman of the Joint Control Commission, reports that independent shops have joined manufacturers' associations in large numbers.

Mr. Alger reported an increase of membership in the Industrial Council of Manufacturers from 157 to 277 and an increase from 53 to 85 in the American Association of Manufacturers. The sub-manufacturers' group, he said, has increased its membership from 406 to 868 and has added 156 Brooklyn shops to its roster.

There has been ready response to this request for cooperation. Large houses have offered to cooperate in any way that may be helpful. In some instances chain stores have submitted lists of sub-manufacturers who make up the garments they sell, so that the union may check up and ascertain whether garments are made under union conditions.

The union fostered a return of members who had fallen away from the organization when the strike call was issued. At that time the general executive board of the union made the following plea:

And with this object of creating as much solidarity as possible in the ranks of the union in the present critical moment, the general executive board has once again called upon all local unions in the cloak and dress industry to place no obstacles in the path of all former union members who want to reenter the ranks of the union. Everyone who wishes to rejoin the union should be given a brotherly welcome and admitted as a full-fledged equal member with all the rights, privileges, and duties that go with membership in the union, and without any discriminations on the score of political opinions and convictions. At the same time the local unions should bear in mind the present trying situation in the cloak industry and place no financial difficulties in the way of those who may desire to come back to the fold in the course of the next three weeks.

The New York Times states:

The offices of the union's joint board were crowded all day yesterday with cloakmakers largely from nonunion shops and many from left wing shops. * * *

Announcement was made by the union that three large shops, formerly controlled by the communists, had broken away and marched to union halls.

Communist activities were feared at the beginning of the strike. Headlines proclaimed that the left wing Needle Trades Workers' Industrial Union was making strenuous efforts to induce striking cloakmakers to desert the old union and to join the new labor organization. The union made a counter attack upon the lefts when members who had left the union were invited back into the ranks without prejudice. This offer can scarcely be appreciated unless one goes back into the history of the union.

In 1926 the communist, or left wing garment workers, having gained control of the union, called a strike affecting 35,000 workers and lasting 20 weeks. When a settlement was finally reached the union was weakened by internal dissension and workers were disheartened. The period between 1926 and 1929 has consequently been fraught with grave problems for the union. Right wing unionists had regained control when the recent strike was called. According to David Dubinsky, acting president of the union, "events of the last few days have proved 'that the union has completely recovered from the communist adventure of 1926.' He made public the results of the referendum * * * * when 16,094 persons voted in favor of the peace settlement and 358 voted against it, with 265 blanks."

Chain-store cooperation.—Exploitation of labor through operation of sweatshops constitutes the largest menace to the worker. Chain stores, large purchasers of women's cloaks and suits, have therefore been invited to confer with the union to ascertain what part of the goods they handle are manufactured under substandard conditions. According to the New York Times:

Invitations to a conference to discuss the eradication of the sweatshop from the cloak and suit industry were sent out by Mr. Dubinsky yesterday to the National Bellas Hess Co. and the J. C. Penny Stores, said to be the two largest chain-store organizations in this country. Other chain stores will be similarly invited.

In his letter Mr. Dubinsky asserted that a large part of the cloak production for the chain stores, as well as that of mail-order houses, comes from "sweatshops which are not only a menace to the workers employed in them, but also constitute a danger to the public at large because of the unsanitary conditions under which the garments are made up."

There has been ready response to this request for cooperation. Large houses have offered to cooperate in any way that may be helpful. In some instances chain stores have submitted lists of sub-manufacturers who make up the garments they sell, so that the union may check up and ascertain whether garments are made under union conditions.

Mr. Schlesinger, in asking cooperation of the National Bellas Hess Co., stressed the fact that garments made under insanitary

⁴ Referendum vote on acceptance of strike settlement, 1929.

conditions endanger the consumer's health as well as that of the worker. In reply to his letter, the Bellas Hess Co. stated in part:

You are right in assuming that our customers have an interest in the sanitary conditions of the shops in which the garments we sell are produced, and we are very careful to see that all our garments are made only in sanitary shops; we will be more than pleased to assist in your efforts to improve and maintain the welfare of the workers and standards of the industry.

We will be glad to participate in conferences or discussions which the governor may call for the purpose of the bettering of conditions.

Drive against Sweatshops to Continue

On July 17 when agreements between employers and the union were signed, "Colonel Lehman told the union and employers' representatives that the cloak and suit industry was at the crossroads and that while the outlook was more promising than at any time since 1910, all factors would have to cooperate to carry out the provisions of the agreement and to end the evils of the sweatshop and substandard production."

Governor Roosevelt stressed the need for cooperation between worker and employer when he said:

In an industry broken up by so many small units, strong and comprehensive organizations of both employers and workers are of the highest importance.

Surely you should be able to work together heartily to spread such enlightened industrial standards into the less fair and progressive portions of the industry.

The union gathered its forces in an effort to eradicate the sweatshop even before agreements were signed with organized employer associations representing shops that conform with union standards. The first step, as is noted above, was to enlist the support of chain stores and mail-order houses in a drive on substandard shops. Once a settlement with the Industrial Council, the Merchant Ladies' Garment Association, and the American Cloak and Suit Manufacturers' Association was reached, Mr. Schlesinger said: "The strike will be continued against the independent manufacturers, jobbers, and contractors, who employ 11,000 workers, until they submit to the agreement with the organized factors. * * * They will have to assume their share of the responsibility to the industry and to the joint commission established by the agreement."

Later the Daily News Record states:

Efforts are being made by the union however, to have independent manufacturers join the respective associations and thus help them save part of the season, which, if they persist in remaining independent units, will be lost to them.

Summary

Groups concerned with this latest settlement in the women's cloak and suit trade of New York came out of the strike with a minimum of loss owing to the rapidity with which settlement was reached. All parties to the agreement would have lost heavily had the strike lasted over a protracted period, as the fall season for manufacture normally opens at about the time the strike went into effect. Moreover, in an industry such as garment manufacture in New York, where shops are small and financial reserves accordingly low, a long strike may result in large numbers of bankruptcies among shops. Thus any gains won in a long strike, such as that of 1926, may avail the union less than is hoped for, as the union may find itself faced with

the problem of adjusting differences with a new group of independents in the following producing season.

As a result of the present settlement, the garment trade now enjoys a joint-control commission designed to furnish exact information upon which to base action looking toward improving conditions in shops which have contractual relations with the union and doing away with sweatshops.

Labor believes that it has gained greater security by (1) securing the right to visit shops in order to ascertain the union status of workers; (2) qualification of the discharge clause by which union members discharged because of their union activity are now entitled to have their cases reviewed by the impartial chairman of the women's garment trade; (3) further restriction of the right of employers to reorganize their shops, which must now be completed in one week at the end of June; (4) continued recognition of the 40-hour week; and (5) extra pay for overtime work during the two periods when such work is permitted.

Employers effect a saving by (1) postponement of consideration of unemployment insurance until the industry is in better shape financially; (2) similar postponement of consideration of wage increases; and (3) by bringing those portions of the industry where standards were low up to the standards of better shops through the provision that all members of employer associations must abide by terms of the agreement during the life of such agreement, whether they leave the association or not, and by making independent shops as well subject to the regulation of the joint-control commission and the impartial chairman.

Finally, by strengthening the enrollment in employer associations and the union it is sought to awaken both groups to their joint responsibility for the industry.

General Strike of Women's Dress Workers

SCARCELY had terms of settlement between employers and the union been agreed upon in the cloak and suit industry when the union proclaimed its intention of carrying on a similar fight against the sweatshop in that branch of the trade engaged in dress manufacture. Strikes involving 80,000 workers have been authorized by the general executive board of the International Ladies' Garment Workers' Union. The general strike, if called, will affect workers engaged in the manufacture of women's dresses in nine centers—New York, Philadelphia, Boston, Chicago, Cleveland, Baltimore, Kansas City, Toledo, and Toronto (Canada). Up to date a strike among dress workers in New York City, affecting 45,000 persons, has been authorized to take place December 1, when the existing agreement in the dress trade expires. A stoppage has already been ordered among 7,000 embroidery workers for a 40-hour week.

Purpose of the Strike

In calling the dress strike, as in the earlier cloak and suit strike, the union seeks to do away with the sweatshop and to extend its membership among garment workers.

Justice sums up the purpose of the forthcoming stoppage, as follows:

A drive to rid the dress industry of sweatshops has been launched by the International Ladies' Garment Workers' Union, following hard upon the substantial victory gained by the union for a large section of its 30,000 cloakmakers in Greater New York. * * *

Mr. Schlesinger explained that the dress trade is virtually completely demoralized, with only a few thousand of the 45,000 in the trade union members in good standing. While agreements with the Wholesale Dress Manufacturers' Association, the jobbers, and the Association of Dress Manufacturers, the contractors, do not expire until next December, efforts will begin at once to bring the non-union and sweatshops into line. * * *

We are determined * * * to bring over into the dress industry a machinery that will function similarly to the joint commission just now created in the cloak industry under terms of the new agreements.

In discussing the prospective strike, *Advance*, the organ of the Amalgamated Clothing Workers of America, touches upon the drive for membership as an important phase of the union program:

The union is * * * reported as preparing for a drive among the dress-makers and the white-goods workers, of whom, it is claimed, there are 100,000 in New York City and who are practically all unorganized. There was a time, not more than 12 years ago, when the Dress and Waist Makers' Union counted from 25,000 to 30,000 members, and 10,000 or more white-goods workers were working under union conditions. * * * In the upheaval of subsequent years unionism in these trades was brought to nought. Here is hope that I. L. G. W. U. may actively undertake and successfully carry on the task of once again unionizing these workers.

Payment of Wages by Check

UNTIL recently it has been the general and accepted practice of employers to pay all wages in cash. The merits of this method were obvious, especially in certain communities where the existence of company stores and store credit systems had led to definite abuses. On the other hand, the physical difficulties and dangers involved in the handling of large sums of money, amounting to hundreds of thousands of dollars every pay day in many large establishments, has led to considerable discussion of the practicability of payment of wages by check and to the actual adoption of this practice by a large number of firms.

Advantages and Disadvantages

ALTHOUGH the check method of wage payment has its disadvantages, studies of the subject seem to indicate that there are certain definite advantages, chief among which is the factor of safety both of pay roll and of employees. According to information collected by the American Bankers' Association, 205 pay-roll robberies occurred during a certain period of six months, resulting in the loss of \$1,856,874, the wounding of 40 employees, and the death of 20.⁵

Among other advantages claimed by certain companies for the check method of wage payment are the following: It eliminates temptation for petty pilferage in the office; eliminates disputes as to amounts received by employees; reduces force and equipment which would be necessary if employees were paid by cash; saves time;

⁵ American Bankers' Association Journal, January, 1927, p. 491: "The pay-roll check plan," by John R. Downing.

encourages thrift on part of employees; eliminates loans to fellow workers; eliminates loss of earnings through carelessness or theft; relieves the office manager of a weekly strain; eliminates carrying around heavy boxes; allows mailing of checks, whereas cash requires personal delivery; reduces pay-roll errors and enables those made to be easily found, since they are recorded on the checks; saves the cost of pay-roll insurance and special guards; permits greater flexibility in time of making payments; educates employees in handling checks and in using banking facilities.

The drawbacks from the employers' standpoint include difficulties of identification, lost or raised checks, and in certain cases opposition of employees. Some companies have found the plan more economical, others more expensive, and still others have found the cost of the check and cash methods about the same. The extra work for executives in signing checks, and the making out of new checks for those lost, have also been referred to as disadvantages.

There appears to have been little loss from raised, forged, or lost checks. All but one of 50 firms consulted by the Metropolitan Life Insurance Co. in a study of the check method of wage payment⁶ would replace lost checks, although some required the employee to wait until the expiration of the 30-day period during which the checks were valid. One company which had paid by check for eight years had been required to replace only three lost checks in the entire period. Another company reported that about two checks a year are lost, while another had 12 checks reported lost during one year, but 7 of them were found and returned to the owners after several days.

The chief objection to the plan on the part of employees has been the inconvenience or difficulty in getting the checks cashed. Sometimes they are compelled to deal at specific places of business in order to get them cashed, which hampers their freedom in trading in the community. There is also the possibility of having to pay a discount. Another objection is that their incomes become known to the persons who cash the checks.

Employees and representatives of labor who were consulted by the Merchants' Association of New York in connection with a survey made in New York City in 1924⁷ stated that although they were "willing to accept the system in the interest of employers in order to eliminate the danger of pay-roll holdups, they see practically no advantage and considerable inconvenience for themselves in this system." The report of the survey further comments:

Employees admit that the pay by check method has one advantage for them, namely, that if they lose their checks they can still get paid for their work, whereas if they lose their cash pay envelope there is little chance for recovery. Aside from this point, however, few employees find the system attractive. They complain that they have no banking connections and that they experience considerable difficulty in identifying themselves at banks and in getting their checks cashed.

If the employee calls upon the corner grocer or drug store to cash his check he finds himself under the necessity either of taking a slight discount or of making a purchase in order to compensate the merchant for his trouble. Besides, he discloses the amount of his income.

⁶ Metropolitan Life Insurance Co. Policyholders Service Bureau. Report No. 53: Paying Employees by Check. New York, December, 1927.

⁷ Merchants' Association of New York. Greater New York, July 28, 1924, pp. 2-4: "Employers on payment of employees by check."

A long-standing objection of organized labor to payment by check originated from the practice of some unreliable employers in issuing checks without sufficient funds in bank to permit them to be cashed. This practice led to the incorporation in many union agreements of clauses stipulating that wages must be paid in cash only. The present position of organized labor in this matter is discussed later.

Cashing of Checks

SOME companies have made special arrangements with banks as to hours, extra tellers, etc., to enable their employees to get their checks cashed, and in certain localities arrangements have been made with stores to accept the checks as cash. It is reported that some storekeepers are glad to cash the checks in order to reduce the amount of money they carry overnight or through week ends. The employees of one company consulted by the Metropolitan Life Insurance Co. cashed their checks with money received in collecting customers' accounts, while another company would deposit the checks in a bank for employees who requested it.

In order to facilitate the cashing of checks and to protect the employee against having to disclose the amount of his wages, certain companies issue the employee's pay in several checks instead of one. One firm limits the amount of each check to a maximum of \$10, using a check of a different color for odd amounts; for example, a man getting \$42.50 per week would receive four pay checks (blue) of \$10 each and one (buff) for \$2.50.

To meet the problem of identification different methods are employed. The employee may be furnished with an identification tag bearing his name and time-clock number, which also appear on his pay check. An identification card system is employed by some firms. Railroad men on several lines use their passes as a means of identification. Some companies require their employees to sign their names in a space provided on the face of the check when the check is delivered and they are instructed not to indorse the check until it is being cashed. This enables the bank teller speedily to verify the signature. Some firms issue bearer checks or relieve the banks of the responsibility of identification.

An ingenious plan being used by one company is a combination time card and pay check drawn on the bank. The pay period runs from the 1st to the 15th and from the 15th to the end of the month. During each pay period the employee punches his card and at the end of the period the hours are added, the earnings calculated, and the check form on the reverse side of the time card filled in.

Nearly always the checks used for payment of wages bear a prominent statement showing that they are pay-roll checks.

Experience of Employers with Plan

IN A STUDY on payment of wages by check published by the department of manufacture of the Chamber of Commerce of the United States in 1927, 42 out of 43 employers reported satisfaction with the plan from the management's standpoint and the remaining firm "fair satisfaction." From the employees' standpoint, 22 of these same employers reported satisfaction, 2 "fair satisfaction," and 3

minor objections, "now mainly overcome." The other 16 firms reported either that they believed the employees were satisfied or that there had been no unfavorable reaction from them.

Only six of the firms canvassed by the Metropolitan Life Insurance Co. stated that their employees would prefer to receive cash. Six others said that the employees objected to the checks at first, but soon became accustomed to the new method. As an example, was mentioned the experience of the Chicago Rapid Transit Co., which had arranged to cash checks for all employees who desired it. The number taking advantage of this offer was said to be fairly large at first, but it gradually decreased to such a point that the company discontinued the practice of cashing the checks.

Information obtained from 84 employers by the Merchants' Association of New York, in the study previously referred to, showed that 59 employers had found the payment-by-check method satisfactory, 11 firms were dissatisfied with it, and 5 either had never put the plan into practice or had discontinued it.

Of 120 foundries reporting to the Gray Iron Institute (Inc.), 82 pay their employees by check, according to a wage report dated July 1, 1929, issued by the institute.

Extent of Use of Payment-by-Check Method

THE Chamber of Commerce of the United States found that over 3,000 firms, many of them large and representative, were paying wages by check, and a report by Aera, the official publication of the American Electric Railway Association, published in the September, 1928, issue, showed that the paying of wages by check is quite common among electric railway companies, those mentioned in the study being the following: Chicago Rapid Transit Co.; Puget Sound Power & Light Co., which controls the Pacific Northwest Traction Co., Seattle, Wash.; Market Street Railway Co., San Francisco; Georgia Power Co., Atlanta; and the various utility companies comprising the Public Service group operating in New Jersey. Payment of steam-railroad employees by check is also reported to be quite general.

Present Position of Organized Labor

AN EXAMINATION of the trade agreements in the files of the Bureau of Labor Statistics showed that most of these agreements contain some provision regarding the method of wage payment. The majority of them stipulate that all wages must be paid in cash; while one calls for the payment of wages in United States gold. A few agreements provide that any member accepting a check in payment of his wages shall be fined.

In general, where payment of wages by check is permitted there are certain stipulations. For example, in a number of the Chicago building trades agreements the following provision appears:

Any member of the party of the first part who fails to have sufficient funds in the bank to meet all pay checks issued to members of the party of the second part shall be penalized by the joint arbitration board, to the extent of a sum not less than the expense incurred in collecting the amount due, the full amount to be paid to complainant as well as depriving the defaulting employer of the right to pay by check.

The Chicago bricklayers' agreement provides that the employer who defaults payment of checks issued to members shall be fined \$5 for each check so defaulted. The Wichita bricklayers' agreement provides that "members accepting checks will be protected by the union by members not being allowed to work on jobs until all checks have been made good." The Dayton bricklayers provide for payment by check by mutual agreement with contractors who have established a pay-roll checking system. In such cases the entire "gang" must be paid by checks.

The agreement of Omaha painters permits members to accept checks in payment of wages except from employers whose checks have at some time been protested.

A few agreements provide that if payment is made by check the payment shall be made either Friday night or two hours earlier than the usual time of payment on Saturday in order that the checks may be cashed before the closing hour of the banks.

A small number of agreements provide that wages may be paid either in cash or by check. In others it is optional with the employees whether they will accept checks or not, and in still others it is optional with the employer whether he shall pay with cash or checks.

Attitude of the Banks

IN ORDER to determine what would be the reaction of the banks to the universal adoption of the check method of wage payment, the American Bankers' Association sent out a questionnaire to about 400 banks located chiefly in industrial and commercial centers.⁸ It was found that a large majority of the banks would favor the use of pay-roll checks by their customers if proper safeguards and assurance of reasonable compensation by balances or other means were given.

There was no standard banking practice for handling pay rolls in the banks and the practices of banks in the same city differed considerably, depending chiefly on the character of the accounts handled. Since the handling of the checks is an expense to the banks, some customers pay their bank a flat figure of \$1 per \$1,000 of the amount of the pay roll regardless of the number of checks issued. In other instances banks require that a certain balance be maintained before they will handle a customer's pay roll. The report states that "in one way or another the average bank is compensated for handling the pay checks, although there does not appear to be any fixed standard." The blank checks are generally supplied by the depositors or at their expense.

A number of banks had special windows for the express purpose of cashing pay checks, while a few assigned special windows on certain days or during rush periods.

More than half of the banks answering the inquiry as to the matter of identification stated that they took only the usual precautions in identifying the payee and in cashing checks, but 25 banks insisted on positive personal identification. A few banks had been relieved of the responsibility of identification and had been freed from liability as a result of paying the wrong party.

⁸American Bankers' Association Journal, January, 1927, p. 491: "The pay-roll check plan," by John R. Downing.

Mexican Labor in the South Platte Valley, Colo.

EACH year in the spring some thousands of Mexican families migrate north to work in the sugar-beet fields in the United States. In the latter part of October and in November many of these people return to the Southwest but some remain on the farms or in the towns in the beet-growing sections or in the northern cities so that they will be on hand when beet work is resumed the next spring, while others desert agriculture for industrial employment.

A recent detailed study⁹ of Mexican labor in the beet fields of the South Platte River, in northeastern Colorado, which is one of the principal beet-producing sections of the United States, has recently been made by Paul S. Taylor, under the immediate supervision of a faculty committee of the University of California. This article is a summary of the report on that investigation, which is the second of a series of regional investigations of Mexican labor in the United States.¹⁰ The field researches for the study under review were made from the beginning of the beet harvest late in September to its close in the middle of November, 1927.

The ordinary spring and summer beet field work of plowing, planting, irrigating, and cultivating is usually done by the farmer himself or his hired men, or by supplementary laborers who are paid by the month. "This work is done by American labor, by which in this area is meant Americans and Americanized Europeans." In exceptional cases this field work is done by persons of other races, but in practically all such cases both the laborer and the beet grower are under a share lease or are owners.

The hand blocking and thinning¹¹ of beets and the weeding of beets with a hoe in the spring and early summer, and the pulling and topping of beets in the fall, are usually done by workers imported either in previous years or for the particular season, and it is Mexican labor that does this work which is the subject of Taylor's study.

In 1927 the total sugar-beet acreage in Colorado was 218,000, of which 84.6 per cent was in the ten counties comprising the sugar-beet producing area of northeastern Colorado; in 1909, the total acreage for the State was 108,082, of which 72.2 per cent was in these same northeastern counties.

As a result of this extension of sugar-beet production in northeastern Colorado, the cutting off of Japanese immigration in 1907, the reduction of the supply of German-Russian laborers because of the World War, restrictive immigration legislation, and the transformation of former German-Russian laborers into owners or tenants, there have

⁹ Taylor, Paul S. *Mexican Labor in the United States, Valley of the South Platte, Colo.* Berkeley, University of California Press, 1929. (No. 1 of this volume, *Mexican Labor in the Imperial Valley, California*, a study by the same author, was summarized in the *Labor Review* for March, 1929 (pp. 59-65).)

¹⁰ "The series represents the results of a research project on a grant from the Social Science Research Council, commenced under the committee on scientific aspects of human migration, continued by the committee on population, and carried on under the immediate supervision of a committee of members of the faculty of the University of California."

¹¹ Blocking is cutting out extra beet plants so that the remaining ones may be properly spaced. Thinning is removing from the cluster of plants left after blocking all but one plant. After the beets have been loosened by a machine lifter they are pulled out of the ground by hand. Cutting off the tops with a knife is also done by hand.

been striking changes in the nationality of sugar-beet field laborers in this region, as shown in the following table:

CHANGES IN NATIONALITY AMONG HANDWORKERS IN THE SUGAR-BEET FIELDS OF NORTHEASTERN COLORADO, 1909 AND 1927¹

Nationality	1909		1927	
	Number	Per cent	Number	Per cent
Mexican.....	1,002	9.4	14,313	59.0
German-Russian.....	5,870	54.7	² 7,563	31.2
Japanese.....	2,160	20.1	175	.7
Miscellaneous white.....	1,692	15.8	2,200	9.1
Total handworkers.....	10,724	100.0	24,251	100.0

¹ Figures for 1909 are from reports of the Immigration Commission, vol. 24, p. 114. Figures for 1927 are based upon acreages harvested by the different groups divided by 8. The sugar company has found by experience that about 8 acres are harvested per "equivalent full fare" paid for shipping in family labor.

² Arrived at by adding 70 per cent of the acres harvested by growers to the acreage handled by German-Russian contract laborers. Seventy per cent is estimated to be the proportion of growers doing their own labor who are German-Russians.

It will be noted from the above table that the proportion of Japanese handworkers was practically negligible in 1927, and the percentage of miscellaneous whites had declined from 15.8 per cent to 9.1 per cent. The most remarkable changes, however, were the decrease of the German-Russians from 54.7 per cent to 31.2 per cent and the increase of Mexicans from 9.4 per cent to 59 per cent.

Mexican Population in Area Investigated

IN THE winter of 1926-27 the Mexican population resident in the 7 leading beet-producing counties of northeastern Colorado, it is estimated, was about 11,000, or 5.7 per cent of the total population. These are the Mexicans who stay through the winter in the towns or on the farms of the beet country. Some of them work in the coal mines or on the railroads, but the great majority work in the beet fields in the summer, even though they enter other occupations when the beet harvest is over.

The Mexican population in the beet-growing counties in winter is small. In Weld County, the largest beet-producing county in the State, with the largest Mexican population in northeastern Colorado, the Mexicans formed only 8.8 per cent of the school census population in 1927. Probably, on the average, nearly as many more Mexicans come in for the beet season in the spring and leave in the fall, and are therefore not included in the school census. With respect to either season, however, it will be observed that the proportion of Mexicans is very small as compared with conditions in an area like Imperial Valley, California, where one-third or more of the population is Mexican. A further difference is the much higher proportion in the population of northeastern Colorado of Spanish Americans, i. e., persons born in the United States and descended from the stock which colonized New Mexico and southern Colorado.

Economics of Sugar-Beet Production

SUGAR BEETS are the outstanding crop of the South Platte Valley from the standpoint of capital as well as of labor. The acreage devoted to such crop is not only very extensive but the agricultural production of beets is inseparably associated with the industrial production of beet sugar.

According to the United States Tariff Commission, "beet-sugar production, considered as a whole, is primarily an agricultural industry, more than 80 per cent of its personnel and about 50 per cent of its total capital being employed in agricultural processes. Costs of producing sugar beets are about 50 per cent of the total costs of producing refined beet sugar."

Economic factors arising from the nature of the sugar beets themselves necessitate a high degree of industrial organization. First, the bulkiness of the beets makes their transportation expensive, and so the production of beet sugar must be carried on close to the beet fields. Indeed, the great mass of sugar-beet shipments are made over very short distances—only a few miles. Second, the quality of sugar beets declines if they are kept for any substantial period of time. They will keep when they are frozen, but it is necessary to work them before they thaw. This calls for a short manufacturing season. Large amounts of capital invested in plants "lie idle two-thirds of the year or even more." There are few other industries that have such heavy investments in plant equipment with such protracted periods of idleness. As a consequence, the overhead costs in the beet-sugar industry are exceedingly high.

The unusual dependence of the farmers and factories upon each other in this industry is due to the fact that the farmers need a factory near them so that they may dispose of their crops economically and the factory requires a large supply of beets in order to have a long operating season.

All of the 13 beet-sugar factories in northeastern Colorado are owned by the Great Western Sugar Co., which contracts for and manufactures into sugar all the beets produced. For the purpose of collective bargaining in disposing of their crops the beet growers are more or less organized in the Mountain States Beet Growers' Association.

The sugar company makes loans to the banks which finance the beet growers, contracts to purchase the whole crop, guarantees a minimum price and additional payments according to the sugar content of the beets and the market price of sugar. Moreover, the company makes arrangements for the buying of seed by the beet growers, educates the farmers in regard to the economic value of the beet crop, and instructs them in the best method of raising such crops.

The company secures the hand labor for working the beet crop which is not locally available. In some areas and at some times the respective companies, as employers, have hired the labor directly. The general practice at the present time, however, which is followed also in northeastern Colorado, is for the company to secure the labor, acting as an agent for the growers. The labor is gathered up from places far and near, shipped into the beet-growing territory, and distributed to the growers. The company draws up the labor contract, sometimes in consultation with a committee of the growers' association, upon the basis of which the relations of the individual grower to his individual contract laborer are governed throughout the area. The factory staff aids in the handling and supervision of the work of the beet laborers, and by the terms of the contract and in practice, the field men and agricultural superintendents act as arbiters to settle differences arising between growers and laborers.

This predominance of the factory side of the beet-sugar industry over its financial, agricultural, and labor aspects is found not only in Colorado but in all the principal beet-production sections of the United States.

The report presents a table from a publication of the United States Tariff Commission on Costs of Producing Sugar Beets, Part IV, Colorado, which shows that weighted average returns to the beet growers for 1921-1923 after the costs of production had been deducted (including land rental and interest at 6 per cent on other capital) were:

	United States	Colorado
Per acre of sugar beets harvested.....	\$1. 90	\$2. 75
Per ton of sugar harvested.....	. 17	. 24
Per pound of sugar extracted from sugar beets.....	. 07	. 09

In 1926 in northeastern Colorado "67 per cent of the beets were grown by tenants."

Recruiting and Shipping of Seasonal Labor

IN THE SPRING trainloads of beet field workers move north from the southwestern part of the United States. The handling of this labor in 1920 is reported upon as follows by the labor commissioner of the sugar company:

In moving a train of Mexican laborers a thousand miles, several operations are required besides paying the railroad company for the tickets. One or two company agents were placed in charge of these trains as conductors. At each railway division point they check up the number of passengers with the new railroad conductor, and on the basis of their count, payment is made for transportation.

Lunches of bread, meat, cheese, fruit, and coffee are furnished en route. Before the train leaves the shipping point, a full supply of food is put on to last through to Denver. * * *

The first duty of the company conductor naturally is to deliver all the labor he starts with. Whether that is an arduous task or not depends largely on whether labor has been selected on the other end that wants to go through and go to work in good faith. The loss last season between shipping points and Denver was 2 per cent of the number shipped.

These labor shipments are a great expense to the company. In 1926 the average cost to the company was \$28 per worker, "of which 15 per cent was spent for soliciting and conducting the labor through to destination, and 85 per cent was for railroad fares and food." The total expenditure was \$360,000. In 1926 the labor shipment per "40-acre family" cost on the average \$90.75, and the total expenditure was more than \$250,000. For the 5 years closing with 1922 the cost per worker was \$25.

Family groups constitute the great majority of labor shipments to northeastern Colorado. Families have been found more stable both in their relations to their work and to the community, and the shift to such labor is in part responsible for the decrease in the number of complaints made against the lawlessness and disorder of imported Mexican workers. The former practice of using large scale contract gang labor in the beet fields has been completely abandoned in this region.

As the company officials who handled labor came to know better the Mexicans and their language, it was deemed unnecessary to work through middlemen who, of course, received their commissions from laborers. With families predominating, it became possible, and it is regarded as desirable, to make each family its own contractor and have all dealings directly between the farmer-employer and the contractor-laborer.

The following table shows a considerable change in the localities from which the Mexican labor is recruited:

ORIGIN OF SHIPMENTS OF MEXICAN LABORERS TO GREAT WESTERN SUGAR CO. TERRITORY IN 1923 AND 1927

Section	Number		Per cent	
	1923	1927	1923	1927
North ¹ -----	881	2,628	10.21	24.85
South ² -----	2,973	1,430	34.44	13.52
Other ³ -----	4,778	6,518	55.35	61.63
Total-----	8,632	10,576	100.00	100.00

¹ From New Mexico, Amarillo, Tex., and one small southern Colorado city.

² From Fort Worth and El Paso, Tex.

³ From a variety of places including labor centers as remote as Los Angeles; mostly, however, shipments originating in Colorado.

This change is attributed in part to the increase of Mexican population in labor markets closer to the Colorado beet fields and in part to the growing practice of importing Spanish-American dry farmers from New Mexico.

Resident Labor Supply

BECAUSE of the expense of transporting labor from distant States, the Great Western Sugar Co. and other similarly situated companies have attempted to establish a local labor supply. While large numbers of German-Russians became farm lessees and even farm owners, many of them still remained in the laboring class and settled permanently in northeastern Colorado. But the tendency of Mexican labor was to return to the South. The company, however, has appealed to this class of workers to stay through the winter, has appealed to the farmers to furnish these workers with proper housing for the cold season, and if practicable winter jobs, and has stimulated home ownership in Mexican colonies. This effort to insure a resident Mexican labor supply is reported as "markedly successful." Since 1921 the average increase in the number of resident families has been 258 per annum.

Wages and Earnings

BEET LABOR in the La Platte Valley is customarily paid a flat rate per acre and a bonus of 50 cents on each ton in excess of 12 tons per acre. Usually the contractor agrees to do all the hand labor from thinning to topping.

In order to be sure that the contractor will not leave before his work is finished the contract stipulates that from the payment due when the thinning is finished \$1 per acre be held back until such contract is wholly completed, unless the failure to complete the contract is not the contractor's fault. "Separate prices, however, are fixed for the separate operations to be performed, and the payments during the season are made upon the basis of these separate prices, which combined make up the flat rate price for the entire contract." The working agreement also provides that:

In the event that hand work is not done properly or with sufficient rapidity by the contractor, the grower shall appeal to the * * * agricultural super-

intendent, or field man, to either of whom authority is hereby delegated to decide whether the employment of additional help is necessary and to permit the engagement by the grower of additional help to do the work not completed as cheaply as practicable * * * and the grower is hereby authorized to deduct the amount paid such additional labor from the account of the contractor.

Ordinarily the sugar company establishes the wage scale after conferring with representatives of the beet growers' association and with individual growers. The contract labor rates paid to sugar-beet workers in northeastern Colorado from 1909 to 1928 were as follows:¹²

	Minimum rate per acre		Minimum rate per acre
1909-----	\$20	1923-----	\$21
1917-----	20	1924-----	¹³ 23
1918-----	25	1925-----	¹⁴ 22
1919-----	25	1926-----	¹⁴ 24
1920-----	30-35	1927-----	¹⁴ 24
1921-----	22	1928-----	¹⁴ 23
1922-----	18		

¹² And a bonus of 50 cents for every ton over 14 tons per acre.

¹⁴ And a bonus of 50 cents for every ton over 12 tons per acre.

While many individual growers in Colorado were paying a bonus before the 1924 season, this was the first season such provision appeared in the printed contracts.

In 1909 beet growers received \$5 per ton plus the customary sliding scale. Beet laborers received a flat rate of \$20 per acre irrespective of tonnage. In 1927 beet growers received \$8 per ton plus the sliding scale based upon sugar content and the market price of beets. The beet workers received \$24 per acre plus a bonus which amounted on the average to approximately \$1 per acre, making a total of \$25 per acre. It is thus evident that, while the price of beets has advanced approximately 60 per cent since 1909, the price of contract labor has advanced approximately only 25 per cent.¹⁵

Wages in agricultural employment outside of beet work are not standardized to any extent. So far as any generalization is possible, it may be said that the prevailing spring rate for Mexicans in agricultural occupation for a 10-hour day is \$2 in the spring and \$3 in the summer. Irrigators are paid from \$2 to \$4 per day, hay stackers \$3.50 or more (usually with noon meal). The general winter rate is \$2 per day of less than 10 hours. Beet work is seldom done by day labor but when it is the wage is \$5 for the long day prevailing in the beet fields. There are not many Mexicans employed on a monthly basis.

Mexicans in general farm work may receive the same as other classes of labor, but they frequently receive lower wages. These differentials in wages are sometimes differences in the cash rate paid, and sometimes a failure to receive board in cases where other laborers would. Several reasons for these differentials are offered. First, it is pointed out that the Mexicans are not so fast as other workers, nor so well trained in general farm work. This, in many instances, is undoubtedly true. Another reason, also probably true, is that the Mexicans frequently do not know the going rate and therefore do not insist upon equal pay

¹² Prior to 1909 the rate was customarily \$20 per acre. Between 1909 and 1917 the rate varied from \$18 to \$20, but generally stood at the latter figure. In 1920 the rate paid by individual growers varied from \$30 to \$35. The bonus for production over 12 tons per acre yields on the average \$1 per acre.

¹⁵ 1927 figures have been used, since final data on 1928 payments to beet growers under a modified contract were not available. If payments above the guaranteed minimum price of \$7 per ton are not made on the crop the percentage advance in price of beets over 1909 will be approximately 40 per cent, and in the price of labor 20 per cent.

with other labor. Again, when the Mexicans are in dire need they will work for almost anything. In such extreme cases, both Mexicans and Americans have reported occasional wages of Mexicans as low as \$1.50 and even \$1 a day.

It is difficult to determine the actual earnings of beet workers. Since in northeastern Colorado the single man is no longer of much importance as a beet field laborer, it has become the custom "to speak in terms of family earnings." The family group, however, may include not only parents and children but also other adult and minor relatives. "The partly ethical questions raised by measurement of earnings per family rather than per single adult are waived here, and for lack of data, in estimating earnings of families, their composition and the proportion of single men to families are not inquired into."

Average earnings from \$1,500 to \$1,700 are reported for small groups of families. If an estimate must be ventured, \$600 to \$800 probably represents the average annual family earnings in beets. "Housing is of course not included in these figures; and they are based on 1927 contract labor rates, which were approximately 4 per cent above the rates for 1928."

The most protracted period of unemployment comes in the winter. A considerable number of Mexican beet laborers get work in the coal mines in Weld County and southern Colorado. Some beet laborers go back to their own dry farms in New Mexico, while others remain on the Colorado ranches through the winter and feed stock for their farmer-employer. Many of the beet workers, however, settle down in the middle of November "with the prospect of hardly a day's work until beet work opens up the following May."

The average earnings of beet laborers on other crops is also difficult to ascertain. According to the United States Children's Bureau (Bul. No. 115, Child labor and the work of mothers in the beet fields of Colorado and Michigan), "four-fifths of the fathers (or all nationalities) who were contract laborers did a little work in the summer in addition to beet work."

The sugar company has made some efforts "to dovetail beet employment with railroad work, late cotton picking in the Southwest, and coal mining." Adjustments are difficult, however, and the number who can be placed in such jobs is limited.

Labor Relations

ABOUT 1918 and 1919 when the Mexicans began to come to northeastern Colorado in large numbers, both the growers and the community at large were vigorously opposed to such migration.

They were new to the community, they were unstable, they were frequently guilty of infractions of the law, and their beet work was often poor. In so far as the growers' opposition was based upon instability and unsatisfactory work, their objections have greatly declined since the substitution of family labor for solos, and since the Mexicans have learned beet work and are learning other farm labor. This view was often expressed by growers and others familiar with beet labor conditions.

At present, attitudes toward Mexican beet labor range from excessive depreciation to favorable judgments, such attitudes being the result of different experiences with such labor and of prejudice.

Among the criticism reported are "that Mexicans are slow to adapt themselves to teaming, corn husking, shocking, haying, and similar

operations"; that they are more inclined to strike than more far-sighted workers; that they "are unwilling to work on other types of farm labor when there is need of their help." The frequent explanations for this unwillingness is that Mexicans are sensitive and fear that they will not be able to do the farm work well enough to please their employers.

On the other hand, many growers "have with satisfaction" employed the same Mexican laborers for a number of years. "Some farmers have the same Mexicans for 10 years and say that they never worry about their places."

It is evident, the report states, that the criticism of Mexicans as laborers is diminishing. A better selection of Mexicans is being made than was the case a decade ago. Moreover, Mexicans are now more experienced in beet work. The company is educating them along that line by various means, including talks, printed material, and motion pictures. Social objections to Mexicans as aliens are, however, more persistent than economic objections to them as workers.

The complaints of the Mexicans against their employers have to do chiefly with the matters of housing, measurement of the beet fields which they work, and wages. Housing is discussed in the next section of this article.

The contract provides that the company's field men shall measure the beet fields. Labor being paid by the farmer on the basis of acreage, it is not difficult to see how contentions arise over measurements that are believed by the workers to be short. It is the function of the field man to endeavor to adjust matters between the grower and his beet workers. When the problem is very difficult, the case may be brought to the factory superintendent or to the company's labor commissioner at Denver.

The inadequacy of earnings is a frequent subject of complaint. The dissatisfaction seems to be, however, not so much over the pay rates for beet work as over the short-time employment which cuts down annual earnings. A number of complaints are also made about the insufficient pay of other types of agricultural work.

Some Mexicans spoke very well of their employer.

Housing

THE Mexican attitude on the housing provided them by the grower depends largely upon the living standards of the particular family. Some of them contemptuously term the beet shacks "poultry sheds." Others will not even enter into contracts because of the poor dwellings they would have to occupy. Indeed some of them can not be induced to come to the beet fields because of the reports they have heard of the poor housing conditions.

The farmers reply to the charges of bad housing: That the Mexicans themselves are not interested in good houses, and do not take care of good houses which are provided. That this is true of many Mexican families, specific reports by farmers, statements by responsible Mexicans, and observations of the writer agree. There are Mexican families who keep even the better type of houses like pigsties. There are many others who do care about the kind of house in which they live and who keep even the shacks scrupulously clean.

Mexicans as Public Charges

AFTER presenting several statistical tables on expenditures on Mexicans from the pauper fund of Weld County, the author points out that, although the amount expended on Mexican relief seems to be at times out of proportion to the number of them in the community, "it probably is not much greater on the average because of the large numbers of Mexicans shipped in seasonally." When it is taken into consideration that these Mexicans are laborers who are subject to the hardships of irregular employment it would seem that they are not a disproportionate burden on the community even though they may be more of a burden than the laborers of a more thrifty race.

The reports in regard to violations of the law by Mexicans appear, the author thinks, "to be magnified unduly, not only by the northeastern Colorado community but even by the officers who handle Mexican offenders."

Credit Advances

THE REPORT states that improvidence is an outstanding characteristic of Mexican labor. The practice of making credit advances to beet workers has increased greatly since the Mexicans have come to work in such large numbers in Colorado.

The custom of making advances does have certain questionable aspects, and these may be in the minds of those who condemn it as peonage. It does not encourage providence, certainly, although the Mexicans were already improvident before they came to northeastern Colorado. And it does appear to be a factor in keeping Mexican children out of school to work in the beets. The reasons are two. First, the Mexican wants his children to work in order to enable him to repay advances. Second, an even stronger reason, the grower has a financial interest in the earnings of his debtor-laborers.

Mexican Societies

MEXICAN societies in the South Platte Valley of Colorado do not play so important a part in the Mexican population as they do in the Imperial Valley of California. Their membership is neither strong nor numerous. The organization which seems best known among the beet laborers is the Sociedad Obreros Libres at Gilcrest which dates back to 1924.

Ownership of Property

THE NUMBER of Mexicans or Spanish Americans who own farms in northeastern Colorado is almost negligible. There is, however, quite a number who lease land or take up beet growing on shares. Mexicans who buy real estate confine their purchases to laborers' homes located in their own colonies or in colonies established by the company. Some persons in northeastern Colorado think the Mexicans will rise out of the hand labor ranks, but even the most optimistic of these persons realize that the progress will be very slow.

Education

IN THE spring and fall beet seasons in northeastern Colorado it is not difficult to discover that the young Mexicans of school age are generally in the beet fields instead of being at school. While Mexican

parents desire their children's earnings, it is the current belief that the Mexicans are not so eager to have their women and children work as the German-Russians are. Mexicans do, however, make contracts with the view of having their children of school age help them.

The real reason, however, for failure to enforce attendance laws strictly is the indifference of the beet growers, who are frequently members of the rural school boards, and who also employ a large number of families which work in beets. This indifference usually rests on the feeling that assistance of children of school age is essential to prompt performance of beet labor operations, coupled with unconcern over the interrupted schooling of children, many of whom are, after all, of an alien race. It is frequently believed, furthermore, that these children are not capable of getting much benefit from schooling anyway; many are in the rural districts but a few weeks or months at best, and it is a heavy burden on the schools to try to take care of them.

Vacations for the beet season and summer sessions are an attempt to meet this problem of child labor in the beet fields, but the educational value of this alternative in comparison with continuous schooling for nine months is not known.

Under the best of circumstances the school progress of the children of Mexican agricultural laborers in this country is not rapid. These children are retarded and most of them do not progress beyond the third or fourth grade.

In talking with the few Mexican high school students in the LaPlatte Valley the same teasing and ostracism of them by American children was reported as in similar interviews in the Imperial Valley.

Isolation

IN THE towns in the beet-growing districts of northeastern Colorado the Mexicans very noticeably tend to live in groups. This is especially the case when there are large numbers of them in the community. When there are very few their homes are scattered through the poorer neighborhoods. The company colonies are usually on agricultural land some distance from the towns.

The separation of Mexican and American domiciles in northeastern Colorado is not unique. The same phenomenon in Imperial Valley has been described in the preceding study of this series. The analysis of factors underlying that situation applies also to northeastern Colorado. Briefly, these factors are the poverty, gregariousness, and social ostracism of the Mexicans, and these are founded upon coincident differences in class, culture, and race. As for the company colonies, an additional reason for their isolated location is the fact that the sites were either already owned by the company or could be secured more cheaply than sites closer in.

A large number of Mexicans look with favor upon the company's colonies, as they provide cheap and improved housing and community life. Such colonization does, however, accentuate the isolation of these people.

Difficulties due to their labor in the beet fields are far from being the only reasons for segregating or wishing to segregate Mexican children in school. Separation may make it easier to deal "with language handicaps and with educational and cultural adjustments, as well as with interrupted school attendance. * * * Differences in standards of cleanliness; sex problems, due partly to the fact that Mexican children are usually over age for their grade, and partly to difference in standards; and feelings of race difference also underlie the desire for separation."

While segregation is against the law, separation, the report states, is sometimes practically carried out on a geographical basis. For example, the children at Greeley Colony go to the school nearest to it—which school the Americans do not attend.

The opposition to Mexicans as laborers is evidently decreasing and they are becoming "a more stabilized laboring class." There are, however, the report finds, but few modes of approach to close contact between them and Americans. Barriers of class, language, culture, and race consciousness mark "the line of cleavage."

Training the Older Employee for Continued Employment

THE American Management Association has just published the results of an inquiry among representative companies in a variety of industries as to what is being done in the way of special training for older employees.¹⁵ Replies were received from 40 companies out of about 75 to which the questionnaire was sent, although the report comments that "undoubtedly more would have answered but for the fact that they had nothing to report on the subject."

The survey indicated that as yet little is being done in the way of special training definitely arranged for the older worker. It was found that the line between general and special training is a very fine one. Several companies had said they gave training to older employees, but when their replies were analyzed the training was discovered to be general and not specifically for older workers. However, according to the report, "while but few concerns are conducting training as an aid to this adjustment problem, still the evidence is clear that they represent a trend in dealing with the older worker, whether by general or special training, which is both economical and social. * * * From the evidence collected this training for older employees increases their efficiency on present work, prepares them for transfer to other work, and improves the spirit of cooperation."

The report takes up in detail the information received from three companies, having a total of "perhaps 50,000 employees," which have conducted special training for older workers for about four years.

All three of these firms give the training on the work. One supplements it by means of manuals describing the work done in each department, thus enabling the worker to become familiar with the duties of other positions. Also, in the company's slack seasons "the office people are transferred to the floor division and the floor people take the office work. This not only trains them for other jobs, but gives them the appreciation of the difficulties of the other job and promotes better cooperation between the divisions of the department."

Other groups of employees are taken off their regular jobs for a period of two years and are given experience in nearly every department in the company. During this time we attempt to determine for what department the employee will be best suited and late in the course give him specific training for that work.

¹⁵ American Management Association. General management series No. 93: Training older employees for continued employment, by C. R. Dooley and Helen Washburn. New York, 1929.

One of the other companies stated that its training course has proved very popular and that there is a long waiting list for it. The course runs for two years, the instruction being given after working hours on two evenings a week for a three-hour period. It is optional with the employees whether they take the training and they are not paid for the time spent. It is estimated that the cost to the company aside from light, heat, and power, is approximately \$200 a month for the 60 men taking the course.

Effect of the Training

THE FOLLOWING quoted statements, taken from the report, give the experience of the three companies as to the effect of training:

Company A:

- Easier to employ older men profitably.
- Easier to transfer men from one machine or group to another.
- Does make it easier to adjust working relations.

Company B:

- We feel that it is much easier to transfer employees where there is some form of regular training.
- We feel that it is also easier to adjust employees to new surroundings through training.

Company C:

- Because the employee is trained on more than one thing and has a broader knowledge, it is much easier to find an opportunity for him and therefore to transfer him. Because of contact with other departments he has found out during his training that there are other places that have opportunities and are agreeable to work in, and therefore he is more agreeable to being transferred. Because he has broadened out and has studied other work, he has learned to attack new problems and is therefore more adjustable.

All three of the companies agreed that there is a marked increase in efficiency and in usefulness as a result of the training, the reply of Company B being to the effect that "there is a decided change in usefulness because in many instances it permits the employee to continue his or her working career for several years, and we find that the vast majority of our employees, who would be eligible for pensions, desire greatly to be allowed to continue at their work as long as possible."

It seemed to be a universal custom among the 40 companies which replied to the inquiry to put employees on lighter or simpler work as they grow older, often at the same rate of pay. All of the companies stated that they either pension older employees or find suitable work for them, practically never releasing them.

Industrial Museum for Chicago

AN INDUSTRIAL museum, the first of its type in America, is to be established in the city of Chicago, according to an article in the Chicago Tribune Survey for July 10, 1929. Preliminary research work in the fields of physics, chemistry, geology and mining, motive power, transportation, communication, civil engineering and public works, agriculture and forestry, and the graphic arts has been practically completed. The work of building models and equipping the museum will now be undertaken in order that the work of the staff

may keep step with progress in the construction of the building, which is to be started this summer. Business organizations in Chicago have shown considerable interest in the plan and already more than 30 are said to have either given exhibits or pledged themselves to do so.

The museum will include an entire hall devoted to the presentation of the news of science and industry. As an example of the types of exhibits which will be shown, the Chicago Tribune Survey states that if the museum were open at the present time a sectional model showing the difficulties and the advantages of the projected tunnel under the English Channel would be set up. In the division of agriculture and forestry the visitor will see what has been done by the chemist to help the farmer. "Products which were at one time regarded as useless, and in some instances a nuisance, have been turned by the chemist into useful and necessary articles and the farmer has been the gainer. * * * The history of industry in the future will present more of these examples of the utilization of by-products."

The institution is the gift of Julius Rosenwald to the people of Chicago and is to be known as the Rosenwald Industrial Museum. It is planned to have it open to the public in 1932.

Railway Employees' Research Foundation

LEADERS of several railway labor unions affiliated with the Railway Labor Employees' Department of the American Federation of Labor have recently organized the Railway Labor Research Foundation, according to the July 6, 1929, issue of Labor (p. 3).

The purposes of the new undertaking are set forth in its certificate of incorporation under the laws of the District of Columbia, as follows:

The business and objects of the foundation shall be to conduct scientific investigations and surveys of any plans, programs, policies, and similar undertakings by organized labor in the interest of industrial and human welfare and public benefit, particularly in the railway industry.

It shall finance its undertakings from appropriate contributions, employ qualified individuals to conduct its investigations and surveys and prepare its manuscripts and shall publish its findings in the form of suitable scientific treatises.

The initial work of the foundation will be a study of the achievements under the notable Baltimore & Ohio cooperative plan, which has now been adopted by five large railroad systems, including the Canadian National Railways.

The results of this survey will probably be embodied in two volumes—one in popular style for general circulation and the other more technical.

A list of the board of directors is given below:

F. H. Fljozdal, grand president, Brotherhood of Maintenance of Way Employees;

A. O. Wharton, president, International Association of Machinists;

I. M. Wicklein, vice president, Sheet Metal Workers' International Association;

B. M. Jewell, president, Railway Employees' Department, American Federation of Labor;

William H. Johnston, vice president, Mount Vernon Savings Bank, Washington, D. C.;

O. S. Beyer, jr., consulting engineer;
Edward Keating, editor of Labor.

At the first meeting of the directors, Mr. Keating was elected president, Mr. Johnston, secretary-treasurer, and Mr. Beyer, managing director.

It is expected that the overhead charges will be very light, as the officers will not "receive a penny of compensation." When the foundation's directors decide that a certain piece of work should be done, "those who are interested will be given an opportunity to assist."

Skill Involved in Electric-Railway Track Labor

THE distinction between skilled and unskilled labor is often difficult to make. Thus, the work of the track laborers on electric railways involves important elements of skill, according to H. H. George, superintendent of way, Cleveland Railway System, writing in *Aera* (New York) of July, 1929 (p. 399).

Of the many classes of labor connected with the construction, maintenance, and operation of an electric railway system one of the most important, but, at the same time, least recognized factors, is the trackman. Generally referred to as common labor and ordinarily classed as unskilled, many of the operations in connection with his assigned tasks actually require a display of skill equivalent to that demanded of certain classes of shop labor. Who will say that proper track spiking is not an art or that welding or grinding a rail joint is a job for an unskilled workman? Even the job of tamping the track, while it is manual labor, calls for a coordination of brain and brawn that comes only with long practice.

New Policy of the Queensland Labor Department

ON MAY 11, 1929, Queensland held a State election at which the Labor Party, which had held control for 14 years, was defeated by a coalition under the name of the Country-Progressive-Nationalist Party. In accordance with custom, the members of the Labor Government at once resigned and their places were filled by members of the coalition. The Queensland Industrial Gazette, in its issue for June 24, 1929, gives summaries of various addresses made by the new Minister of Labor and Industry, Mr. E. H. Sizer, setting forth some of the policies he intends to inaugurate.

Bureau of Statistics

PROMINENT among these is the creation of a bureau of statistics and economics. As a preliminary step, a statistician will be temporarily appointed, and on his recommendations a statistical system will be founded. Through this it is hoped to obtain accurate data which will be of great help to industry, and to the department in its work of aiding and guiding industry.

Mr. Sizer said * * * that every phase of industry would be subjected to statistical inquiry. He felt that the comparatively few statistics gathered in the past were of little use. It was desired to be in a position to assist manufacturers, and give them standards of comparison with other States; and the only way to do that was to start on a proper basis and maintain an indisputable accuracy in the compilation of the statistics.

Also, it was hoped to improve the usefulness of the labor bureaus in helping men to look for work. "A tremendous amount of the work of the department had been confined to employing men in Government services. It was his hope to establish confidence in the bureaus."

No State Trading

ANOTHER feature of the new policy is the renunciation of the system under which the Government itself carried on certain industries. On this, the minister spoke in no uncertain terms. "I am going to put an end to State trading in Queensland, and I do not intend to waste any undue time about it," he declared. Nevertheless, a degree of State supervision of private industry, based on financial aid given, seems to be contemplated.

Where accountants and business experts recommended it, the Government would be prepared to use some of the credit of the State to develop industries which would naturally be under the supervision of his own department. It already had been done in the case of primary industries, and he saw no reason why it should not be done with secondary industries also.

Peace in Industry

THE MINISTER explained that he had no quarrel with the unions, recognizing that the day of collective bargaining was with us. It was apparent, however, that various practices, highly objectionable and not essential to real unionism, had developed, and he suggested that the unions could correct these more easily than he could. The right method of control in industry presented difficulties, he admitted, but thought that the cooperative system and profit sharing would, under efficient management, lead them far on the right path. But such systems could be introduced only when a feeling of confidence was established among all classes engaged in industry. At an early date the minister hoped to call a conference of all sections of industry, and he appealed for cooperation in seeking a solution of the problems before them.

Improved Coal Situation in England

THE Economist (London), in its issue for July 20, 1929, publishes figures taken from a statistical summary issued by the Mines Department showing for the coal-mining industry as a whole a credit balance for the quarter ending March 31, 1929. The following table shows comparative figures for the quarterly periods since the beginning of 1928:

OUTPUT, COST, AND PROCEEDS OF COAL, BY QUARTERS, 1928 AND FIRST QUARTER OF 1929

[s. = 24.33 cents; d. = 2.03 cents]

Period	Tonnage disposable	Costs per ton		Proceeds per ton	Profit (+) or loss (-) per ton
		Wages	Total, net		
1928:		s. d.	s. d.	s. d.	s. d.
First quarter.....	56,800,000	9 8	14 2 5	13 5	-0 9.5
Second quarter.....	50,700,000	9 7	14 6	13 1	-1 5
Third quarter.....	49,500,000	9 6	14 4	13 0	-1 4
Fourth quarter.....	54,500,000	9 2	13 9	13 6	-3
1929: First quarter.....	59,100,000	9 0	13 3	14 0	+9

In commenting on these figures, the Economist calls attention to the fact that the weather in Europe was unusually severe during the past winter and that this, coupled with the dislocation of supplies from the Continent, caused an increased demand, which accounts for the profit shown. "The key to the quarter's improved results was an average increase of 6d. per ton in selling prices, coupled with higher output per shift and lower overhead costs consequent on more regular working."

The extent of the improvement differed in the various districts, but every important area—with the exception of Durham, which recorded an average loss of $1\frac{3}{4}$ d. per ton—showed a profit.

Profit margins were as low as $1\frac{3}{4}$ d. in South Wales and 3d. in Northumberland, but ranged up to 1s. in Yorkshire, 1s. $6\frac{1}{2}$ d. in North Derby and Notts, and 2s. $9\frac{1}{2}$ d. per ton in the South Derby, Leicester and Warwickshire district. For the whole industry the aggregate credit balance was £2.25 million, against a loss of £9.8 for 1928.

While the increased selling price was an important factor in the improvement shown, other items played a part. Production per man-shift rose from 21.24 hundredweight during the first quarter of 1928 to 22.13 hundredweight during the corresponding quarter of 1929, while wage costs declined during the same period by 8d. per ton. Some light on possible reasons for these changes is given in a report sent from the United States Consulate in London, under date of June 29, 1929, on the mechanization of collieries. According to this a special committee appointed by the Midland Institute of Mining Engineers and coal-owning associations has recently published its findings in regard to underground conveying and loading of coal by mechanical means. The special purpose of such machinery, it is explained, is to reduce the labor required to produce a given quantity of coal, and so reduce the labor cost, and in both respects it is markedly successful.

An example is given where the output per man per shift delivered to the main haulage was increased from 1.9 tons to 4 tons. Other instances are given showing that whereas by the old method of hand getting and hand filling by tubs it took 82 man-shifts to produce 100 tons, with machine cutting and conveyor loading it only required 39 man-shifts to produce the same quantity. In another case the number of men employed has been reduced from 2,400 with the old method to 1,390 under the present system for the production of exactly the same output of coal.

PRODUCTIVITY OF LABOR

Production and Per Capita Output in Japanese Coal Mines, 1914 to 1927

THE following table on coal production in Japan from 1914 to 1927 has been compiled from the 1925, 1926, 1927, and 1928 issues of the Financial and Economic Annual of Japan, published by the Department of Finance of that country.

The total amount of coal produced was greater in 1927 than in any of the other 13 years listed, as was also the average production per man per day.

NUMBER OF WORKERS, NUMBER OF DAYS WORKED, TOTAL PRODUCTION, AND PRODUCTION PER MAN PER DAY IN JAPANESE COAL MINES, 1914 TO 1927

Year	Number of employees on June 30	Number of days worked	Average number of days per man	Production (tons of 2,000 pounds)	
				Total	Average per man per day
1914	182,637	44,106,992	242	24,574,036	0.56
1915	193,142	42,386,897	219	22,586,950	.53
1916	197,907	47,238,338	239	25,244,412	.53
1917	250,144	57,679,769	231	29,058,193	.50
1918	287,159	69,193,103	241	30,896,835	.45
1919	348,240	83,860,075	241	34,470,126	.41
1920	342,873	81,129,349	237	32,237,187	.40
1921	267,614	63,751,499	238	28,902,986	.45
1922	¹ 249,022	¹ 60,111,505	(²)	30,535,596	(²)
1923	278,771	60,063,425	215	31,910,284	.53
1924	251,069	59,720,700	238	33,191,163	.56
1925	252,898	60,368,322	239	34,677,713	.57
1926	235,044	57,433,472	244	34,641,484	.60
1927	239,167	57,991,079	242	36,960,788	.64

¹ Exclusive figures of the prefecture of Kanagawa.

² Not computed, as number of employees was not reported for the entire country.

WOMEN IN INDUSTRY

Negro Women in Industry

THE United States Women's Bureau has recently brought together the findings of its various studies of negro women in industry and published them as Bulletin No. 70. The most comprehensive of these studies was a survey made in 1920-21, covering 11,812 women in 150 manufacturing plants in 9 States. In addition to this, the bureau has made industrial surveys of 15 States in which negro women were included, the dates of these studies ranging from 1918 to 1925, and the size of the negro group covered from 18 in Iowa to 5,032 in Virginia. These 15 studies which are here brought together dealt with 17,134 colored women employed in 682 establishments. Of these, 4,850 employed in 370 plants have been omitted, since "the interest of this bulletin centers in the negro woman in the newer manufacturing pursuits and those excluded were known to be engaged in occupations considered customary for negro women, such as sweeping and cleaning, or were in laundries, hotels, or restaurants." It will be noticed that the data were gathered at different times through a period of seven years, the comprehensiveness of the separate studies varies, and it is possible that changes in industrial progress since 1918 have altered some of the conditions. Nevertheless, the findings have been brought together in the belief that they present a fairly accurate cross section of the prevailing status of negro women in manufacturing industries during the first half of the present decade.

Industrial employment is a comparatively new thing for negro women, and showed a marked increase at the very time that the extent of their employment in gainful occupations showed a decrease. In 1910, according to the census of that year, 54.7 per cent of all negro women were gainfully employed, but in 1920 only 38.9 per cent were so employed; the number employed in industrial occupations, however, increased during the period by 37,046, and the proportionate increase was even greater.

The proportion of the employed negro women who were in the manufacturing and mechanical industries nearly doubled, rising from 3.4 per cent of the total in 1910 to 6.7 per cent of the total in 1920, when 104,983 are listed in manufacturing and mechanical pursuits. This is in vivid contrast to the increase of only one-tenth of 1 per cent in all women so engaged, and shows a very striking change in the status of negro women during the decade.

Occupational Distribution

IT IS A TRUISM that newcomers usually make their entrance into industry through the least desirable trades or processes. This is especially true of negro women, who in securing their footing had to overcome a discrimination based on sex as well as race. By far the largest group, 6,411, or 52.2 per cent, were working in tobacco and

tobacco products, more than one-half being in the occupation known as "stemming" or "stripping." Food products, including in this term bakeries, the canning and preserving of fruits and vegetables, slaughtering and meat packing, and nuts, employed 2,302, or 19.5 per cent. The largest single group here was working on nuts, four-fifths of whom were engaged in picking out kernels, and none followed unusual occupations, except that in one case a negro woman was forewoman in a room of 19 workers. Few of the food workers were in occupations requiring skill, and some were engaged in exceedingly disagreeable work.

The 880 in slaughtering and meat packing were engaged in the dirtiest, roughest, or most disagreeable operations in which any women were employed in this industry, where practically all the processes except the final packing may be considered dirty, rough or disagreeable. One-third of those reported worked with casings and chitterlings. In one plant a few were engaged on the killing floor. More than 100 were occupied with hand-knife processes that require dexterity, skill, and sometimes a good deal of strength.

Textiles employed a total of 1,176, or 9.6 per cent of the entire group. The majority of these were in plants making cotton yard goods or hosiery and knit goods, but smaller groups were found in bag-making factories, in the manufacture of cordage and twine, in yarn plants, in waste factories, and in other miscellaneous textile establishments. In most of these cases, the colored women were engaged in general labor or were helping the machine operators. "The work requiring most skill was that in hosiery, where of the 327 included more than two-fifths were looping and seaming, a few were spinning, and 70 were boarding."

Wood products employed 980, or 8 per cent of the total, mostly at such occupations as stacking wood, off-bearing, sandpapering, gluing, or varnishing. A few were assembling parts and a number were assisting at saws.

No other occupational group accounted for as much as 5 per cent of the total. Two and eight-tenths per cent were in house furnishings, 2.4 per cent in glass products, 1 per cent in clothing, 0.8 per cent in paper and paper products, 0.6 per cent in metal products, 1.9 per cent in miscellaneous manufacturing, and 1.3 per cent in general mercantile occupations. To a large extent they were employed in the less skilled kinds of work, but some exceptions were found.

One of the most significant cases in the whole range of the establishments studied was that of a printing and publishing company, where there were 17 negro women. They were in high-grade occupations at which comparatively few women work. The firm was that of a negro religious paper in a southern State, and 7 women were in the bindery, 3 were in the composing room, 3 were monotype operators, 1 was a press operator, and 3 read proof.

Wages and hours are given in considerable detail, but naturally these varied so widely according to locality and industry it would be difficult to summarize them. The same is true of earnings. A study of the time the women had spent in the trades in which they were found showed that of 2,819 who reported, slightly over three-fifths (61.7 per cent) had been at their work for at least two years, while over one-sixth (17.6 per cent) had been in the same trade for 5 and under 10 years, and 11.4 per cent for 10 years and over. They were not a conspicuously youthful group, 13.1 per cent of the 3,150 reporting on age being under 20, 42.7 per cent 20 and under 30, 25.7 per

cent 30 and under 40, 12.7 per cent 40 and under 50, and 5.8 per cent over 50. Of 3,048 reporting on marital status, 39.9 per cent were married, 29.8 per cent widowed, separated, or divorced, and 30.2 per cent single.

As a result of the studies it is felt that the situation justifies a somewhat optimistic view. The work negro women were doing when these studies were made was an advance over earlier conditions.

The types of work in which negro women were found may safely be said to represent, for them, distinct if somewhat slow industrial progress. Large numbers were still engaged in sweeping and in cleaning of various kinds and many of these have been omitted from the present study. Others worked at tasks that would properly be classified under general labor. Still others were in employments that, while scarcely unusual in themselves, were notable because they represented the carrying over of the older traditional occupations, sometimes with changes in method, into the newer industrial system. A considerable number operated machines of different kinds, many of which involved only simple operations or movements repeated indefinitely, but some of which required dexterity or a degree of skill. A few were found in supervisory posts or in positions involving more or less responsibility. * * * Occupations that required the greatest skill were those of the spinners in textile plants and of the loopers and seamers in hosiery mills, of the operators of power sewing machines and of metal presses, of the riveters in bag factories, of the core makers in metal plants, of a few of those working in wooden-box making, and of those found in one printing and publishing house in which negro women were carrying on all parts of the work, however skilled, including monotype operating, composing, and proof reading.

CHILD LABOR

Migratory Child Workers in California and Elsewhere

AMONG the papers presented at the annual conference of the National Child Labor Committee held in San Francisco in June, 1929, were two dealing with migratory child workers.¹ One, presented by Dr. G. B. Mangold, handled the subject as a whole. The problem, he pointed out, is widespread and increasing in difficulty. It is found in every part of the country where fruit and vegetables are raised or canned. Owing to the seasonal character of such work, an adequate resident labor force can not be obtained; the migratory workers come, cultivate or harvest their particular crop, and pass on. Owing to the cheap and easy transportation afforded by the auto and to the establishment of auto camps, it is far easier now than it used to be for whole families to wander far afield, and thousands of families with little property other than an automobile drift from one part of the country to another. Then there are the families transported from large cities to labor camps for work on truck or fruit farms or in canneries, and in the South and West the influx of Mexicans to work on the fruit, vegetable, or sugar-beet crops, and in all these cases children form part and parcel of the movement.

The social and physical effects upon the children are deplorable. The health conditions of the camps in which they spend much of their time are often wretched; they are nomads taking no root in the community and receiving no training in skilled or continuous occupations, practically trained in instability, and often subject to embittering discriminations. Educationally, they fare badly. In the case of families which go out from the cities to work on fruit and vegetable farms, the children often lose a month or more at both ends of the school year, because the migration takes place before school closes in the spring and ends after it opens in the fall. In the case of the entirely migratory families, the children are apt to have no schooling at all, or schooling of so poor a character and given under such adverse circumstances that it can not be effective, and the children are badly retarded.

Both State and Federal action is needed to deal effectively with the situation, the help of the Federal Government being necessary because this is an interstate problem. A far-reaching program should be adopted, including regulation of labor camps, traveling schools or special State aid for the education of migratory children, and child labor legislation protecting them from exploitation in the agricultural labor in which they are generally employed.

¹ National Child Labor Committee. Publication No. 354: Migratory child workers, by George B. Mangold and Lillian B. Hill. New York, 1929.

Education of Migratory Child Workers in California

THE SECOND PAPER, by Lillian B. Hill, chief of the bureau of attendance and migratory schools of the State department of education of California, gives some particulars of the way in which that State has attempted a solution of the problem. Owing to the great diversity of its crops and the influx of Mexican labor, the problem is especially acute in California. According to the school census of 1927, made in the first week of October, there were 36,891 children who declared that they had no settled home. In the same census there were reported as part of the school population 102,405 Mexican children, who, for the most part, are migratory.

Eighty-five per cent of these children are engaged in seasonal labor and follow the crop from place to place for the greater part of the year. They may return to Los Angeles, Riverside, or San Bernardino for the month of December or January for what we are accustomed to speak of as the seasonal lay-over, but for all the rest of the year they are traveling up and down the length and breadth of the State.

To protect the educational rights of these children, act 7494a of the General Laws of California was passed, providing for the maintenance of schools for the children of migratory laborers engaged in seasonal occupations in the rural districts of the State, and creating a revolving fund of \$10,000 for carrying out the work. During the period July 1, 1928, to July 1, 1929, migratory schools established under this act secured from the State and the county in which they were established \$19,993. A number of school districts have not yet used the fund, preferring to take care of the children in the regular school, where a room or two may be added to accommodate them, or a tent set up, or some other provision made. In such cases the migratory children are apt to be massed together in seriously overcrowded classes, the poorest teacher in the school is often assigned to them, and the school hours may be shortened to their detriment, their day being 240 minutes, while children in the regular classes are given a day of 360 minutes.

In order to do this the migratory school must start as early as 7.30 in the morning. It dismisses for the day at 5 minutes to 12. Why do they do this? In order to adjust the child to the crop.

In place of such unsatisfactory conditions the State is trying to set up schools for migratory children planned to meet their special needs. There are serious difficulties in the way. The question of language is troublesome when so many of the children use English only under compulsion. The program of physical education must be modified for children already overworked, undernourished, and physically tired. Many of the migrants are so seriously retarded that they are physically out of place among the children with whom, on an educational basis, they are classed. Also, the continual change from one school to another breaks up the social adjustment of the child, even though all the schools were good. Such difficulties are under consideration, and in its final form California's program for the education of migratory children is expected to contain these features:

1. Their legal status under the law clearly defined and their right to an equality of educational opportunity with all other children of the State established. It

will be of no importance whether one is born in San Francisco or Los Angeles or in the prune or cotton regions, educational opportunities will be the same.

2. A simplified curriculum based on minimum State standards which will give instruction growing out of their own knowledge and experience. * * *

3. Standards which will guarantee sanitary and educationally serviceable school plants and equipment. * * *

4. Educational opportunity equivalent to the highest standards maintained by the community. If the regular school of the district is to have a 360-minute day so will all of the schools, whether migratory or not.

5. A definite health program for the care of these children and the protection of other children with whom they come in contact.

6. Interest and cooperation of the social and welfare agencies in regulating the living conditions of migratory families. It is impossible to raise the educational level of the children if the home environment is to remain as it is to-day.

7. Teachers, especially trained, with a broad social outlook; and salaries which will attract the right type of individual to the service.

8. Lastly and most important, a program of recreation.

School-Leaving Age in England

ON JULY 18th, in reply to a number of questions in Parliament, Sir Charles Trevelyan, the Minister of Education, made the following statement concerning the age of compulsory school attendance, which is at present 14:

His Majesty's Government have carefully considered the most suitable date for the raising of the school age to 15. After weighing all the circumstances, they have decided to prepare the necessary legislation to raise the school age to 15 as from April 1, 1931. I am at once asking representatives of the local education authorities and professional bodies to meet me with a view to consultation and cooperation. Consideration is being given to the form and amount of maintenance allowances to be granted, but I can make no announcement at present.

The proposed change was announced thus early in order that the local authorities, who are at present preparing their financial programs for the next three years, might include provisions for the increased attendance which is involved in the plan. The change is looked upon as highly important for several reasons. It not only means an improvement in the educational opportunity given every child, but has a direct bearing upon unemployment. Keeping the children in school a year longer will decrease the supply of young workers, and thus, it is hoped, throw more work to adults, and providing school room and class instruction for them will require additional buildings and additional teaching staff. It is estimated that the move will mean an increase of approximately half a million in the number attending school. As in many places both schools and classes are already overcrowded, the need for new buildings becomes immediate and pressing, a fact of importance in view of the acute unemployment in the building trades.

RECREATION

Plan for Increase of Recreational Areas in Massachusetts¹

THE necessity for the provision of recreation spaces which will take care of the future expansion of cities is receiving increasing recognition from various governmental agencies. In a report recently made to the Governor of Massachusetts by the Committee on Needs and Uses of Open Spaces it is pointed out that "as trustees of posterity we should plan for the future" so that it will be possible for generations to come to enjoy outdoor recreation.

The population of cities is steadily increasing and the development of transportation facilities together with the growing tendency to close privately owned areas to the public increases the need for such publicly controlled areas as State and town forests and parks, motor camps, scenic and historic sites, beaches, reservations for the conservation of wild life—bird, mammal, and fish preserves—and general outdoor recreation areas.

The importance of such provisions is shown by the fact that 94 per cent of the population of Massachusetts are urban dwellers and that 3,500,000 of the 4,150,000 persons in the State live within 40 miles of Boston.

The report of the committee contains proposals for the orderly expansion of public playground facilities, including the development of open areas independent of the present reservations as well as in conjunction with the State reservations. It is also recommended that a division of parks should be created under the Department of Conservation and that there should be cooperation between the various State departments and voluntary agencies in the execution of future plans. The point was stressed in the report, also, that a State program alone is not sufficient but that the proper development of outdoor public recreation facilities requires the cooperation of adjoining States.

¹The American City, New York City, August, 1929, pp. 121, 122.

HEALTH AND INDUSTRIAL HYGIENE

Industrial Tuberculosis

THE extent to which the occupation is a causative factor in the development of tuberculosis is often a difficult matter for physicians and workmen's compensation boards to determine. In a discussion of the relationship of tuberculosis to industrial hazards by Dr. Sidney J. Shipman, in the *Journal of the American Medical Association*, July 27, 1929 (pp. 257-259) the types of cases which may arise out of the employment are described with the purpose of developing a basis for decision on such cases.

The industrial hazards as they affect tuberculosis are said to be trauma, overexertion, and inhalation of dust, while inhalation of chemical substances and poor working conditions are sometimes claimed as causes.

The effect of an injury, if severe, may be loss of appetite and weight which together with the fatiguing effect of pain results in a lowering of the general resistance to infection. In general, the writer considers that the development of tuberculosis as a result of trauma may be regarded as industrial when there is hemoptysis (spitting of blood), pneumothorax (air or gas in the pleural cavity), and fever or other proof of an activated lesion following an injury in a previously healthy individual. It may also be considered to be industrial when the injury has been severe enough to undermine seriously the general health, and when an infection follows immediately after the injury and in turn is merged with clinical tuberculosis.

Three cases are cited by the writer as illustrative of these three conditions. The first was that of a young college student who was working during his summer vacation for a contractor and was injured by the collapse of a wall while working in an excavation. A large rock struck him in the chest, severely bruising him, and although he returned to work after a day's rest in bed the bruised area never felt well and pain was always present. Six months later he was given a careful physical examination and was found positive for tuberculosis with extensive infiltration of the lung on the side which had been injured. It was considered that the injury lighted up a quiescent or inactive focus of infection, and the case was settled by the insurance carrier on that basis without contest.

Similar cases which are frequently met with are those in which tuberculosis of the knee or other joint follows an injury.

The effect of trauma in lowering the general resistance is shown by the case of a carpenter who fell about 40 feet, sustaining various fractures and contusions about the head, shoulders, and chest. The injury was followed by marked loss of weight and impairment of the general health. After a period of ill-health lasting some months it

was discovered that there was extensive infiltration of both lungs, and while the tuberculosis was not discovered until nearly a year had elapsed, it was held that the injury had been severe enough to undermine the general health and to activate a previously inactive case of tuberculosis.

The third case was that of a stevedore, who in the course of his occupation slipped and fell into the water. He contracted pneumonia as a result of the wetting, and when the pneumonia failed to resolve in the usual manner it was discovered that tuberculosis was present. As the man had previously been well, it was held that the accident had activated a previously inactive tuberculosis and that the tuberculosis was, therefore, industrial.

Unusual exertion may be followed by hemoptysis or spontaneous pneumothorax. The decision as to whether or not these cases should be regarded as industrial depends upon the condition of the lungs when the accident occurred. If it appears that there was soft infiltration and a thin-walled cavity, it is considered that the hemorrhage or the pneumothorax might have occurred under any circumstances, but if the examination shows no preexisting disease the case should then be regarded as of industrial origin.

Among workers subjected to the inhalation of dust there can be no question of the responsibility of the industry in cases of pneumoconiosis, which does not develop usually until many years of exposure, but in border-line cases the decision must rest upon the amount of exposure and upon the extent of fibrosis present in the lungs as shown by the X rays.

While it is sometimes asserted that tuberculosis results from the inhalation of the fumes of various chemicals, the writer believes that in general such claims are very weak and that it would have to be shown that exposure had been very long and had led to impairment of the general health before such a claim could be admitted. Poor working conditions, he considers, can not be regarded as a primary cause of tuberculosis, as there are so many other factors entering into these cases, such as insufficient rest and food and poor living conditions, that the industry can not be considered as the cause.

The chief hazards, therefore, which should be considered in dealing with tuberculosis cases occurring among industrial workers are injury, exertion, and dust inhalation, although there are others less easily classified which might arise out of the employment. Each case must, however, be judged on its merits in deciding whether tuberculosis or its activation should be considered as an accident attributable to the industry.

Methyl Chloride Poisoning in Mechanical Refrigeration

A REPORT in a recent issue of the Journal of the American Medical Association of a number of cases of accidental poisoning from methyl chloride gives an account of the symptoms and after-effects of exposure to this gas.¹

¹ Journal of the American Medical Association, August 3, 1929, pp. 353-358: "Methyl chloride poisoning from electric refrigerators," by Arnold H. Kegel, M. D., William D. McNally, M. D., and Alton S. Pope, M. D.

Among these gases methyl chloride has been responsible for a number of cases of poisoning, the latest cases reported having occurred in Chicago. Since August, 1928, 29 cases of poisoning by commercial methyl chloride, with 10 deaths, have been reported from that city. Three of these occurred in a plant where methyl chloride refrigerators were manufactured and the others developed in kitchenette apartments where leaks were discovered in the refrigerating system. An account of these cases is given in the *Journal of the American Medical Association*, August 3, 1929.¹

Methyl chloride is a noncorrosive gas with a boiling point of 24 C. It is colorless and transparent in both the gaseous and the liquid state. It is not perceptibly irritating to the eyes or lungs and has a faintly sweet ethereal odor. The chief danger in its use comes from the lack of marked odor or irritating properties, which makes its presence in the atmosphere difficult of detection.

The toxic action of methyl chloride has been recognized for many years, but the first report of accidental poisoning from the gas appears to have been made by Gerbis in 1914, who reported the cases of two machinists who were affected while repairing an ice machine. Nine years later 10 cases of poisoning from the gas were reported by Roth, and in 1926 Schwartz reported 10 cases of poisoning, with 1 death, these cases, which were reported in German medical journals, all having occurred in the repair or installation of commercial ice machines.

In the spring of 1927, 21 nonfatal cases of poisoning were reported among employees of a refrigerator factory in Indiana. The symptoms in these cases were drowsiness, vertigo, visual disturbances, staggering gait, loss of appetite, and drooping of the eyelids (ptosis), in some cases slight nausea, and later the development of insomnia and fine tremors of the extremities.

In the majority of the Chicago cases a tentative diagnosis of food poisoning was made, in two of the cases strychnine poisoning was suspected, and in five cases metal poisoning. The possibility of methyl chloride poisoning was first suspected in August, 1928, and again in February, 1929, but it was not until June, when three acute cases occurred, that a definite diagnosis of methyl chloride poisoning was made.

The symptoms in the entire series of Chicago cases were in general a marked drowsiness, mental confusion, stupor, weakness, nausea, pain in the abdomen, and vomiting. In the severe cases there were convulsions and cyanosis with alternating periods of coma, followed by delirium and restlessness. In most instances there were muscular tremors and hiccup during the acute stage and severe headache and in some cases some degree of mental disturbance. Amblyopia and vertigo were complained of by 11 of the patients and there was a tendency for this to persist after they had otherwise clinically recovered.

The pulse and respiration of the persons suffering from the poisoning were all increased, in some instances the rate being more than doubled, and there was a rise in temperature to 104° F. in nonfatal cases and in two cases just before death to 107 and 107.4. Death was always preceded by severe cyanosis and the immediate cause of

death seemed to be respiratory paralysis. The blood picture was suggestive of primary anemia, and there was generally anuria (suppression of the urine) lasting during the acute stage of the poisoning.

The results which have been noted in patients recovering from methyl chloride poisoning appear to be caused by injury to the nervous system. Among the sequelæ there may be extreme weakness, an ataxic gait, extreme nervousness and emotional instability, loss of appetite, and dimness of vision.

Studies by the United States Bureau of Mines have shown that exposures of from 10 to 12 hours to concentrations of the gas as low as 0.12 or 0.15 per cent are sufficient to produce death in the experimental animals with definite degeneration in liver, spleen, and kidneys and a hemorrhagic condition in the lungs and other parts of the body. Postmortem examinations have shown practically the same pathologic changes in human cases as those found in experimental animals killed by exposure to low concentrations of methyl chloride gas.

Silicosis Among Sandstone Workers in Great Britain ²

THE extent of the occurrence of silicosis of the lungs among workers in sandstones and gritstones was the subject of a special inquiry in Great Britain in quarries and stone yards where the workers were exposed to dust from these stones containing a high percentage of silica. A preliminary survey of these workplaces had been made, which included the collection of atmospheric dust samples at various processes and under different conditions of work and on different kinds of stone.

The inquiry consisted of the clinical and radiological examination of the chests of workers in the different processes in the getting, cutting, and dressing of stone, 454 clinical and 266 radiological examinations being made. All the men examined were actually working at the time, no examinations being made of men who were out on account of illness. The occupations covered were those of masons, rock-getters, quarrymen, planers, sawyers, turners, quarry laborers, wallstone dressers, drillers, crushermen, builders, carvers, masons' laborers, and cranemen, but the variations in the types of work in the different areas made it difficult to define strictly the limits of the occupations.

The degree of silicosis present is characterized by changes in radiographic appearances and clinical symptoms and has been divided, by investigators, into three stages indicating the progress of the disease. The first stage is characterized by the appearance of the earliest detectable physical signs of the disease and radiographic appearances include the presence of nodular shadows and an increase in the hilum and linear shadows. This stage may be with or without impairment of the capacity for work. The second stage is marked by development of the physical signs found in the first stage and an increase in the nodular shadows shown by the radiograph, with a tendency to confluence of the individual nodules. In this stage there is some degree of impairment of working capacity. The third stage is that in which

² Great Britain. Home Office. Report on the occurrence of silicosis among sandstone workers, by Dr. C. L. Sutherland and Dr. S. Bryson. London, 1929.

the disease has progressed to such a point that there is practically always total incapacity for work.

Among the 454 workers examined, 112 were shown by the X ray to have positive cases of silicosis and the clinical examinations revealed 268 cases of fibrosis. Ninety of the 112 positive cases were in the first stage, 21 in the second and 1 case, because of the massive consolidation, was considered to be in the third stage. The study naturally showed a preponderance of first stage cases because of the fact that many become unfit for work in the later stages.

The fact that silicosis does not commonly develop until after many years of exposure to the silica dust is shown by the employment records of the workers examined. In the majority of cases the workers had been in the occupation at least 25 years. The youngest positive cases were found among masons and were in the 35 to 39 age group but the greatest number of cases occurred between the ages of 45 and 54. Among the group over 60 years of age there were 10 cases in the first stage and 5 in the second stage.

No estimation as to the extent of tuberculosis was made, since the inquiry was limited to persons actually at work, but one definite open case was found.

While no others were positively diagnosed as tuberculosis, as no sputum examinations were made, in some cases either the clinical or the X ray examinations pointed to the probability of tuberculous infection.

The following table shows the number of workers examined and the number of cases of fibrosis and of silicosis, by occupations:

NUMBER OF WORKERS EXAMINED IN THE VARIOUS OCCUPATIONS IN STONE QUARRIES AND WORKS AND NUMBER OF CASES OF FIBROSIS AND SILICOSIS

Occupation	Clinical examinations		Radiological examinations	
	Number	Cases of fibrosis	Number	Cases of silicosis
Masons.....	171	122	116	57
Rock getters.....	65	32	33	13
Quarrymen.....	115	72	67	33
Planers.....	39	21	23	5
Sawyers.....	14	1	3	
Turners.....	4		2	
Quarry laborers.....	15	2	4	
Wallstone dressers.....	8	8	7	4
Drillers.....	5	2	3	
Crushermen.....	5	2	3	
Builders.....	4	2	1	
Carvers.....	2	2		
Masons' laborers.....	2	1	1	
Cranemen.....	5	1	3	
Total.....	454	268	266	112

Milan Labor Clinic

THE Milan Labor Clinic (*La Clinica del Lavoro di Milano*) owes its origin to the passage of several acts by the Italian Parliament in the early years of the present century and to the concurrent adoption by the city of Milan of several regulations imposing strict hygienic rules upon the factories of the city. An account of the devel-

opment and the work of this clinic is given in a recent publication of that organization.³

A proposal that a labor clinic be established in Milan was approved by the common council of the city in December, 1902. As a result of an international congress on occupational diseases held in that city in 1906, the city council passed an ordinance providing for 60 beds when such clinic should be established and appropriated money for its establishment. The corner stone of the building, located near the center of the city, was laid December 11, 1907. Its first director was Dr. Luigi Devoto, who was transferred from the University of Pavia, where his teaching was of a clinical and social scientific character, covering occupational diseases. On May 17, 1908, a committee on social medicine was constituted at Milan and on November 12, the Savings Bank of Milan appropriated 80,000 lire (\$15,440, at par) for the proposed clinic.

The clinic was opened March 20, 1910, as a department of the city of Milan. The buildings, situated in grounds with an area of 5,000 square meters and themselves covering an area of 1,500 square meters, contain a dispensary, demonstration and operating rooms, infirmaries, laboratories, museums, library, and an auditorium with a seating capacity of 200 persons. To-day the clinic has 110 beds and 8,000 volumes in its library.

The clinic has had a steady growth. In 1924 it became a part of the Royal University of Milan. It is supported by gifts and endowments, and aid has been granted it by the Ministry of Agriculture, Industry, and Commerce, by the Ministry of Labor, by the Ministry of Education, and by the Ministry of National Economy.

The purposes of the clinic are: "To study scientifically the causes of occupational diseases and to spread its clinical knowledge among physicians; to gather in the clinic all workmen apparently or decidedly affected by occupational diseases whether in incipient or advanced stage, for the purpose of diagnostical and therapeutical experiments, and to examine systematically the health conditions of workmen engaged in industries of all kinds, and especially those working in unhygienic occupations."⁴

The clinic is open to the public and especially to workmen affected by occupational diseases, for diagnosis, for treatment, and for teaching purposes. Patients are given a diagnosis of their diseases and are taught the rules of hygiene. Free consultations are given daily to poor people, and working people are examined in their homes. Investigations of certain trades are made on the request of employers, and lectures are given on occupational diseases.

The present staff consists of the director, assistant directors, associates, laboratory heads, assistants, and students. Some 40 or 50 persons are admitted to the clinic monthly, and 125 to 150 visit it for out-patient treatment.

A course of lectures open to graduate students in the medical school is given each year by staff and visiting physicians on such subjects as pellagra, tuberculosis, hygiene, and the various occupational diseases. The most important cases treated in the clinic are discussed with the students.

³ Devoto, Luigi. *La Clinica del Lavoro di Milano, venti anni (1910-1929)*. Milan, Antonio Cordani [1929?].

⁴ Kober and Hanson. *Diseases of occupation and vocational hygiene*. Philadelphia [1916], p. 765.

The clinic is also interested in preventive medicine. The results of its researches and of its laboratory studies are printed in the various medical magazines, over 500 articles by members of the clinic staff having been published to date, many of them in *Il Lavoro*, a magazine established by Doctor Devoto, at Pavia, in 1901, and which later became the bulletin of the Milan clinic. It was first published semi-monthly, but since 1915 has been published monthly. The title was changed to *La Medicina del Lavoro* in January, 1925, when it ceased to be the bulletin of the clinic alone. In addition, special pamphlets relating to the work of the clinic and giving accounts of various cases studied are published. That its work is appreciated is evidenced by the fact that it has received several medals and diplomas from various national and international expositions.

INDUSTRIAL ACCIDENTS

Industrial Accidents to Minors in Illinois in 1928

THE April, 1929, issue of the Labor Bulletin, published by the Illinois Department of Labor, presents a summary of injuries to minors under 18 years of age employed in Illinois. The report is interesting since most of the cases included in the summary represent minors injured since July 1, 1927, the date upon which the law providing that 50 per cent additional compensation shall be paid to minors while illegally employed became effective.

The total number of industrial accidents to minors under 18 years of age reported during 1928 was 1,028, of which 954 represented the loss of more than six working-days or some injury which, if it came under the compensation act, would be compensable. There were 101 accidents to children under 16 years of age. The following tables show the industries in which these children under 16 years were injured, the number legally and illegally employed, and the extent of their injuries:

TABLE 1.—INDUSTRIES IN WHICH MINORS UNDER 16 YEARS OF AGE WERE INJURED, 1928, BY LEGALITY OF EMPLOYMENT

Industry	Legally employed	Illegally employed	Legality not reported	Total
Agriculture.....	1	1		2
Bowling alleys.....		3		3
Clay, sand, and gravel.....		1		1
Construction.....		6		6
Dental office.....		1		1
Golf clubs.....	3			3
Hotels.....		2		2
Manufacturing.....	9	31	2	42
Restaurants.....		4		4
Telegraph and cable.....	10	2		12
Trade:				
Retail coal.....		1		1
Retail news dealers.....	2	1		3
Retail stores.....	1	12		13
Wholesale trade.....	3	2		5
Transportation and storage.....	1	2		3
Total.....	30	69	2	101

TABLE 2.—NUMBER OF ACCIDENTS TO CHILDREN UNDER 16 YEARS OF AGE, 1928, BY EXTENT OF DISABILITY AND LEGALITY OF EMPLOYMENT

Extent of disability	Legally employed	Illegally employed	Legality not reported	Total
Fatal.....	2	1		3
Permanent partial.....	3	12		15
Disfigurement.....		1		1
Temporary total.....	22	50	2	74
Lost 6 or less working-days.....	3	5		8
Total.....	30	69	2	101

TRAINING AND PLACEMENT OF THE HANDICAPPED

Deaf and Dumb in Industry in Great Britain

AN INVESTIGATION¹ made recently by the British National Institute for the Deaf dealt with the difficulties which the deaf and dumb in industry have to meet.

The development of language without hearing is so slow that deaf children leave school at 16 insufficiently equipped, it is said, both in acquired knowledge and the ability to express it, although this retardation does not represent a corresponding lack in general intelligence. As a result the deaf have need for special assistance in their competition with those who hear. Schools for the deaf have always provided for manual training and the average deaf child leaves school with a fair degree of manual dexterity, but in spite of this fact there is usually difficulty in securing employment.

It is estimated that only about 20 per cent of the deaf are below the average in intelligence while another 20 per cent are above the average and the remaining 60 per cent have average ability. The handicap of deafness persists, however, for those of average or more than average capability. Some of the obstacles which the deaf have to overcome include the lack of time in the modern workshop or factory for the additional attention they need to fit them to their jobs; the delay of two years beyond the normal age at which young persons enter industry, which affects them adversely both from the standpoint of adjustment to the job and in regard to wages; and the fear on the part of employers that the deaf are more liable to accidents than those who hear. It is said in regard to the latter point that a compensating quickness of eye is developed in the deaf as a result of their affliction, so that, with the exception of trades necessitating the operation of dangerous machinery, they are in general no more liable to accidents than those who hear. In view of the many disadvantages with which the deaf have to contend the report suggests that an official inquiry should be made for the purpose of improving their industrial opportunities and removing the difficulties so far as is possible, and it is suggested that in the case of the elderly deaf and dumb the qualifying age for old-age pensions should be lowered.

¹Journal of American Medical Association, July 13, 1929, pp. 130, 131.

WORKMEN'S COMPENSATION AND SOCIAL INSURANCE

Occupational-Disease Legislation in the United States

OF THE 44 States and 4 Territories having workmen's compensation laws, awards for occupational diseases are allowed in 11 States (California, Connecticut, Kentucky, Illinois, Massachusetts, Minnesota, New Jersey, New York, North Dakota, Ohio, and Wisconsin), and 3 Territories or insular possessions (Hawaii, Porto Rico, and the Philippines). Awards of compensation are allowed under Federal legislation for occupational diseases in the District of Columbia, under the longshoremen's and harbor workers' act and under the United States civil employees' compensation act. This statement should be modified in that awards are not granted in the case of all occupational diseases under all conditions in all industries.

The laws may generally be classified into two types—those in which it is provided that awards shall be given in cases of occupational diseases generally and those which list specific occupational diseases for which an award will be granted. Under the laws providing compensation for occupational diseases in general terms it should be further noted that the language of the act is sometimes limited to one general class of diseases (Illinois and Kentucky) or limited to an injury (Massachusetts). The Philippines act allows compensation when an employee contracts any illness directly caused by the employment or which is the result of the nature of the employment. The following quotations are the provisions of the workmen's compensation laws or other laws which are the legal basis of the awards of compensation for occupational diseases.

CALIFORNIA

(Stats. 1917, ch. 586, as amended 1919, ch. 471)

(4) The term "injury," as used in this act, shall include any injury or disease arising out of the employment including injuries to artificial members. In case of aggravation of any disease existing prior to such injury, compensation shall be allowed only for such proportion of the disability due to the aggravation of such prior disease as may reasonably be attributed to the injury.

CONNECTICUT

(Gen. Stats. 1918, sec. 5388, as amended 1927, ch. 307, sec. 7)

The words "personal injury" or "injury," as the same are used in said chapter 284, shall be construed to include only accidental injury which may be definitely located as to the time when and the place where the accident occurred, and occupational disease as herein defined. The words "occupational disease" shall mean a disease peculiar to the occupation in which the employee was engaged and due to causes in excess of the ordinary hazards of employment as such. The words "arising out of and in the course of his employment," as used in said chapter 284, shall mean an accidental injury happening to an employee or an

occupational disease of such employee originating while he shall have been engaged in the line of his duty in the business or affairs of the employer upon the employer's premises, or while so engaged elsewhere upon the employer's business or affairs by the direction, express or implied, of the employer. A personal injury shall not be deemed to arise out of the employment unless causally traceable to the employment other than through weakened resistance or lowered vitality.

DISTRICT OF COLUMBIA

(45 Stat. 600 and 44 Stat. 1424)

(2) The term "injury" means accidental injury or death arising out of and in the course of employment, and such occupational disease or infection as arises naturally out of such employment or as naturally or unavoidably results from such accidental injury, and includes an injury caused by the willful act of a third person directed against an employee because of his employment.

HAWAII

(Rev. Laws 1925, ch. 209, sec. 3604)

If a workman receive personal injury by accident arising out of and in the course of the employment or by disease proximately caused by the employment, or resulting from the nature of the employment, his employer or the insurance carrier shall pay compensation in the amounts and to the person or persons hereinafter specified.

ILLINOIS

(Rev. Stats. 1917, ch. 48, sec. 154, p. 1469)

154. SEC. 2. Every employer in this State engaged in the carrying on of any process of manufacture or labor in which sugar of lead, white lead, lead chromate, litharge, red lead, arsenate of lead, or Paris green are employed, used or handled, or the manufacture of brass or the smelting of lead or zinc which processes and employments are hereby declared to be especially dangerous to the health of the employees engaged in any process of manufacture or labor in which poisonous chemicals, minerals or other substances are used or handled by the employees therein in harmful quantities or under harmful conditions, shall provide for and place at the disposal of the employees engaged in any such process or manufacture and shall maintain in good condition and without cost to the employees, proper working clothing to be kept and used exclusively for such employees while at work, and all employees therein shall be required at all times while they are at work to use and wear such clothing; and in all processes of manufacture or labor referred to in this section which are unnecessarily productive of noxious or poisonous dusts, adequate and approved respirators shall be furnished and maintained by the employer in good condition and without cost to the employees, and such employees shall use such respirators at all times while engaged in any work necessarily productive of noxious or poisonous dusts.

(Acts of 1923, p. 352)

(b) 1. If an employee is disabled or dies, and his disability or death is caused by an occupational disease arising out of and in the course of his employment in one or more of the occupations referred to in section 2 of this act, he or his dependents, as the case may be, shall be entitled to compensation, in the same manner and subject to the same terms, conditions, and limitations as are now or may hereafter be provided by the workmen's compensation act for accidental injuries sustained by employees arising out of and in the course of their employment; and for this purpose the disablement of an employee by reason of an occupational disease, arising out of and in the course of his employment in one or more of the occupations referred to in section 2 of this act, shall be treated as the happening of an accidental injury.

2. As used in this subdivision (b) of this section, the word "disability" means the state of being disabled from earning full wages at the work at which the employee was last employed by the employer from whom he claims compensation; the word "disablement" means the act of becoming disabled from earning full wages at the work at which the employee was last employed by the employer from whom he claims compensation; the words "occupational disease" mean a

disease peculiar to and due to the nature of an employment in one or more of the occupations referred to in section 2 of this act; and the word "occupations" means and includes each and every process, manufacture, employment, and process of manufacture or labor referred to in section 2 of this act.

KENTUCKY

(Acts of 1916, ch. 33, sec. 1, as amended 1918, ch. 176; 1922, ch. 50; 1924, ch. 70)

It shall affect the liability of the employers subject thereto to their employees for personal injuries sustained by the employee by accident arising out of and in the course of his employment, or for death resulting from such accidental injury: *Provided, however,* That personal injury by accident as herein defined shall not include diseases except where the disease is the natural and direct result of a traumatic injury by accident, nor shall they include the results of a preexisting disease but shall include injuries or death due to inhalation in mines of noxious gases or smoke, commonly known as "bad air," and also shall include the injuries or death due to the inhalation of any kind of gas.

MASSACHUSETTS

(Gen. Laws 1921, ch. 152)

SEC. 26. If an employee * * * receives a personal injury arising out of and in the course of his employment, he shall be paid compensation. * * *

MINNESOTA

(Acts of 1921, ch. 82, pt. 2, sec. 67)

4327. *Occupational diseases—How regarded—Compensation for—Definitions of.*—(1) The disablement of an employee resulting from an occupational disease described in subsection (9) of this section, except where specifically otherwise provided, shall be treated as the happening of an accident within the meaning of part 2 of this act and the procedure and practice provided in such part 2 shall apply to all proceedings under this section, except where specifically otherwise provided herein. Whenever used in this section, "disability" means the state of being disabled from earning full wages at the work at which the employee was last employed, and "disablement" means the act of becoming so disabled.

(2) If an employee is disabled or dies and his disability or death is caused by one of the diseases mentioned in subsection (9) of this section, and the disease is due to the nature of the corresponding employment as described in such subsection in which such employee was engaged and was contracted therein, he or his dependents shall be entitled to compensation for his death, or for the duration of his disability according to the provisions of part 2 of this act, except as otherwise provided in this section; *Provided, however,* That if it shall be determined that such employee is able to earn wages at another occupation which shall be neither unhealthful nor injurious, and such wages do not equal his full wages prior to the date of his disablement, the compensation payable shall be a percentage of full compensation proportionate to the reduction in his earning capacity.

(3) Neither the employee nor his dependents shall be entitled to compensation for disability or death resulting from disease unless the disease is due to the nature of his employment and contracted therein within the 12 months previous to the date of disablement, whether under one or more employers.

(4) If an employee at the time of his employment, willfully and falsely represents in writing that he has not previously suffered from the disease which is the cause of disability or death, no compensation shall be payable.

(5) The total compensation due shall be recoverable from the employer who last employed the employee in the employment to the nature of which the disease was due and in which it was contracted. If, however, such disease was contracted while such employee was in the employment of a prior employer, the employer who is made liable for the total compensation as provided by this subsection, may appeal to the commission for an apportionment of such compensation among the several employers who since the contraction of such disease shall have employed such employee in the employment to the nature of which the disease was due. Such apportionment shall be proportioned to the time such employee was employed in the service of such employers, and shall be

determined only after a hearing, notice of the time and place of which shall have been given to every employer alleged to be liable for any portion of such compensation. If the commission find that any portion of such compensation is payable by an employer prior to the employer who is made liable to the total compensation as provided by this subsection, it shall make an award accordingly in favor of the last employer, and such award may be enforced in the same manner as an award for compensation.

(6) The employer to whom notice of death or disability is to be given, or against whom claim is to be made by the employer shall be the employer who last employed the employee during the said 12 months in the employment to the nature of which the disease was due and in which it was contracted, and such notice and claim shall be deemed seasonable as against prior employers.

(7) The employee or his dependents, if so requested, shall furnish the last employer or the commission with such information as to the names and addresses of all his other employers during the said 12 months, as he or they may possess; and if such information is not furnished, or is not sufficient to enable such last employer to take proceedings against a prior employer under subsection (5) of this section, unless it be established that the disease actually was contracted while the employee was in his employment, such last employer shall not be liable to pay compensation, or, if such information is not furnished or is not sufficient to enable such last employer to take proceedings against other employers under subsection (5) such last employer shall be liable only for such part of the total compensation as under the particular circumstances the commission may deem just; but a false statement in the information furnished as aforesaid shall not impair the employee's rights unless the last employer is prejudiced thereby.

(8) If the employee, at or immediately before the date of disablement, was employed in any process mentioned in the second column of the schedule of diseases in subsection (9) of this section, and his disease is the disease in the first column of such schedule set opposite the description of the process, the disease presumptively shall be deemed to have been due to the nature of that employment.

(9) For the purposes of this act only the diseases enumerated in column one, following, shall be deemed to be occupational diseases:

COLUMN 1	COLUMN 2
DESCRIPTION OF DISEASES	DESCRIPTION OF PROCESS
1. Anthrax.....	Handling of wool, hair, bristles, hides, or skins.
2. Lead poisoning or its sequelæ.....	Any process involving the use of lead or its preparations or compounds.
3. Mercury poisoning or its sequelæ..	Any process involving the use of mercury or its preparations or compounds.
4. Phosphorous poisoning or its sequelæ.	Any process involving the use of phosphorous or its preparations or compounds.
5. Arsenic poisoning or its sequelæ---	Any process involving the use of arsenic or its preparations or compounds.
6. Poisoning by wood alcohol.....	Any process involving the use of wood alcohol or any preparation containing wood alcohol.
7. Poisoning by nitro and amido derivatives of benzine (dinitro benzol, anilin and others), or its sequelæ.	Any process involving the use of a nitro or amido derivative of benzine or its preparations or compounds.
8. Poisoning by carbon bisulphide or its sequelæ.	Any process involving the use of carbon bisulphide or its preparations or compounds.
9. Poisoning by nitrous fumes or its sequelæ.	Any process in which nitrous fumes are evolved.
10. Poisoning by nickel carbonyl or its sequelæ.	Any process in which nickel carbonyl gas is evolved.
11. Dope poisoning (poisoning by tetrachlormethane or any substance used as or in conjunction with a solvent for acetate of cellulose) or its sequelæ.	Any process involving the use of any substance used as or in conjunction with a solvent for acetate of cellulose.

DESCRIPTION OF DISEASES	DESCRIPTION OF PROCESS
12. Poisoning by gonioma kamassi (African boxwood) or its sequelæ.	Any process in the manufacture of articles from gonioma kamassi (African boxwood).
13. Chrome ulceration or its sequelæ.	Any process involving the use of chromic acid or bichromate of ammonium potassium, or sodium, or their preparations.
14. Epitheliomatous cancer or ulceration of the skin or of the corneal surface of the eye, due to tar, pitch, bitumen, mineral oil, or paraffin, or any compound, product, or residue of any of these substances.	Handling or use of tar, pitch, bitumen, mineral oil, or paraffin or any compound, product, or residue of any of these substances.
15. Glanders	Care or handling of any equine animal or the carcass of any such animal.
16. Compressed-air illness or its sequelæ.	Any process carried on in compressed air.
17. Ankylostomiasis	Mining.
18. Miner's nystagmus	Do.
19. Subcutaneous cellulitis of the hand (beat hand).	Do.
20. Subcutaneous cellulitis over the patella (miner's beat knee).	Do.
21. Acute bursitis over the elbow (miner's beat elbow).	Do.
22. Inflammation of the synovial lining of the wrist joint and tendon sheaths.	Do.
23. Cataract in glass workers	Processes in the manufacture of glass involving exposure to the glare of molten glass.

(10) Nothing in this section shall affect the rights of an employee to recover compensation in respect to a disease to which this section does not apply if the disease is an accidental personal injury within the meaning of the other provisions of part 2 of this act.

(11) The provisions of this section shall not apply to disability or death resulting from a disease contracted prior to the date on which this act takes effect.

NEW JERSEY

(Acts of 1911, ch. 95, added 1924, ch. 124, sec. 2)

22. (a) When employer and employee have accepted the provisions of Section II as aforesaid, compensation for injuries to or for death of such employee by any of the compensable occupational diseases hereinafter defined arising out of and in the course of his employment shall be made by the employer to the extent hereinafter set forth and without regard to the negligence of the employer.

22. (b) (amended 1926, ch. 31). *Definitions.*—When applicable in this act to occupational diseases the following words and phrases shall be construed to have the following meanings:

A. Compensable occupational diseases shall not include any other than those scheduled below and shall include those so scheduled only when the exposure stated in connection therewith has occurred during the employment and the disability has commenced within five months after the termination of such exposure.

Occupational diseases: Anthrax; lead poisoning; mercury poisoning; arsenic poisoning; phosphorus poisoning; benzene, and its homologues, and all derivatives thereof; wood-alcohol poisoning; chrome poisoning; caisson disease; mesothorium or radium necrosis.

B. Willful self-exposure to occupational diseases shall include (1) failure or omission to observe such rules and regulations as may be promulgated by said department of labor and posted in the plant by the employer, tending to the prevention of occupational diseases, and (2) failure or omission to truthfully state to the best of the employee's knowledge, in answer to inquiry made by the

employer, the location, duration, and nature of previous employment of the employee in which he was exposed to any occupational disease as herein listed.

22. (c) The compensation payable for death or disability total in character and permanent in quality resulting from an occupational disease shall be the same in amount and duration and shall be payable in the same manner and to the same persons as would have been entitled thereto had the death or disability been caused by an accident arising out of and in the course of the employment.

(A) In determining the duration of temporary and/or permanent partial disability, and the duration of payment for the disability due to occupational diseases, the same rules and regulations as are now applicable to accident or injury occurring under Section II of the act to which this act is an amendment or supplement, shall apply.

22. (d) Unless the employer during the continuance of the employment shall have actual knowledge that the employee has contracted a compensable occupational disease, or unless the employee or some one on his behalf, or some of his dependents, or some one on their behalf, shall give the employer written notice or claim that the employee has contracted one of said compensable occupational diseases, which notice to be effective must be given within a period of five months after the date when said employee shall have ceased to be subject to exposure to such occupational disease, no compensation shall be payable on account of the death or disability by occupational disease of such employee.

22. (e) All claims for compensation for compensable occupational disease shall be forever barred unless a petition is filed in duplicate with the secretary of the workmen's compensation bureau, at the statehouse in Trenton, within one year after date on which the employee ceased to be exposed in the course of employment with the employer to such occupational disease as hereinabove defined, or in case an agreement of compensation for compensable occupational disease has been made between such employer and such claimant, then within one year after the failure of the employer to make payment pursuant to the terms of such agreement; or in case a part of the compensation has been paid by such employer, then within one year after the last payment of compensation.

22. (f) All provisions of Section II and Section III applicable to claims for injury or death by accident shall apply to injury or death by compensable occupational disease, except to the extent that they are inconsistent with the provisions contained in paragraphs 22 (a) to 22 (f), both inclusive. The provisions in paragraphs 22 (a) to 22 (f), both inclusive, shall not apply to any claim for compensation for injury resulting from accident.

NEW YORK

(Consol. Laws, ch. 67, added by 1914, ch. 41, as amended 1920, ch. 538; 1922, ch. 615; 1928, ch. 754; 1929, ch. 298)

SEC. 2. *Occupational diseases.*—Compensation shall be payable for disabilities sustained or death incurred by an employee resulting from the following occupational diseases:

COLUMN 1	COLUMN 2
DESCRIPTION OF DISEASE	DESCRIPTION OF PROCESS
1. Anthrax-----	Handling of wool, hair, bristles, hides or skins.
2. Lead poisoning or its sequelæ-----	Any process involving the use of or direct contact with lead or its preparations or compounds.
3. Zinc poisoning or its sequelæ-----	Any process involving the use of or direct contact with zinc or its preparations or compounds or alloys.
4. Mercury poisoning or its sequelæ--	Any process involving the use of or direct contact with mercury or its preparations or compounds.
5. Phosphorus poisoning or its sequelæ--	Any process involving the use of or direct contact with phosphorus or its preparations or compounds.
6. Arsenic poisoning or its sequelæ---	Any process involving the use of or direct contact with arsenic or its preparations or compounds.

DESCRIPTION OF DISEASE	DESCRIPTION OF PROCESS
7. Poisoning by wood alcohol-----	Any process involving the use of wood alcohol or any preparation containing wood alcohol.
8. Poisoning by benzol or nitro, hydro, hydroxy, and amido derivatives of benzene (dinitro-benzol, anilin, and others), or its sequelæ.	Any process involving the use of or direct contact with benzol or nitro, hydro, hydroxy or amido derivatives of benzene or its preparations or compounds.
9. Poisoning by carbon bisulphide or its sequelæ, or any sulphide.	Any process involving the use of or direct contact with carbon bisulphide or its preparations or compounds, or any sulphide.
10. Poisoning by nitrous fumes or its sequelæ.	Any process in which nitrous fumes are evolved.
11. Poisoning by nickel carbonyl or its sequelæ.	Any process in which nickel carbonyl is evolved.
12. Dope poisoning (poisoning by tetrachlor-methane or any substance used as or in conjunction with a solvent for acetate of cellulose or nitro cellulose), or its sequelæ.	Any process involving the use of or direct contact with any substance used as or in conjunction with a solvent for acetate of cellulose or nitro cellulose.
13. Poisoning by formaldehyde and its preparations.	Any process involving the use of or direct contact with formaldehyde and its preparations.
14. Chrome ulceration or its sequelæ or chrome poisoning.	Any process involving the use of or direct contact with chromic acid or bychromate of ammonium, potassium, or sodium or their preparations.
15. Epitheliomatous cancer or ulceration of the skin or of the corneal surface of the eye, due to tar, pitch, bitumen, mineral oil or paraffin, or any compound, product, or residue of any of these substances.	Handling or use of tar, pitch, bitumen, mineral oil, or paraffin or any compound, product, or residue of any of these substances.
16. Glanders-----	Care or handling of any equine animal or the carcass of any such animal.
17. Compressed-air illness or its sequelæ.	Any process carried on in compressed air.
18. Miners' diseases, including only cellulitis, bursitis, ankylostomiasis, tenosynovitis and nystagmus.	Any process involving mining.
19. Cataract in glassworkers-----	Processes in the manufacture of glass involving exposure to the glare of molten glass.
24. Methyl chloride poisoning-----	Any process involving the use of or direct contact with methyl chloride or its preparations or compounds.
25. Carbon monoxide poisoning-----	Any process involving direct exposure to carbon monoxide in buildings, sheds or inclosed places.
26. Poisoning by sulphuric, hydrochloric or hydrofluoric acid.	Any process involving the use of or direct contact with sulphuric, hydrochloric, or hydrofluoric acids or their fumes.
27. Respiratory, gastro-intestinal or physiological nerve and eye disorders due to contact with petroleum products and their fumes.	Any process involving the use of or direct contact with petroleum or petroleum products, and their fumes.

SEC. 37. *Definitions.*—Whenever used in this article: 1. "Disability" means the state of being disabled from earning full wages at the work at which the employee was last employed.

2. "Disablement" means the act of becoming so disabled as defined in subdivision one.

SEC. 38. *Disablement treated as accident.*—The disablement of an employee resulting from an occupational disease described in subdivision 2 of section 3 shall be treated as the happening of an accident within the meaning of this chapter and the procedure and practice provided in this chapter shall apply to all proceedings under this article, except where specifically otherwise provided herein.

SEC. 39. *Right to compensation.*—If an employee is disabled or dies and his disability or death is caused by one of the diseases mentioned in subdivision 2 of section 3, and the disease is due to the nature of the corresponding employment as described in such subdivision in which such employee was engaged and was contracted therein, he or his dependents shall be entitled to compensation for his death or for the duration of his disablement in accordance with the provisions of article two, except as hereinafter stated: *Provided, however,* That if it shall be determined that such employee is able to earn wages at another occupation which shall be neither unhealthful nor injurious, and such wages do not equal his full wages prior to the date of his disablement, the compensation payable shall be a percentage of the full compensation proportionate to the reduction in his earning capacity.

SEC. 40. *Time limit.*—Neither the employee nor his dependents shall be entitled to compensation for disability or death resulting from disease unless the disease is due to the nature of his employment and contracted therein, or in a continuous employment similar to the one in which he was engaged at the time of his disablement, within the 12 months previous to the date of disablement, whether under one or more employers.

SEC. 41. *Examining physicians.*—The industrial commissioner shall appoint one or more physicians whose duty it shall be to examine any claimant under this article and to make report in such form as the commissioner may require.

SEC. 42. *Date of disablement.*—For the purposes of this article the date of disablement shall be such as the board may determine on the hearing on the claim.

SEC. 43. *Workmen, when not entitled.*—If an employee, at the time of his employment, willfully and falsely represents in writing that he has not previously suffered from the disease which is the cause of disability or death, no compensation shall be payable.

SEC. 44. *Liability of employer.*—The total compensation due shall be recoverable from the employer who last employed the employee in the employment to the nature of which the disease was due and in which it was contracted. If, however, such disease was contracted while such employee was in the employment of a prior employer, the employer who is made liable for the total compensation as provided by this section, may appeal to the board for an apportionment of such compensation among the several employers who since the contraction of such disease shall have employed such employee in the employment to the nature of which the disease was due. Such apportionment shall be proportioned to the time such employee was employed in the service of such employers, and shall be determined only after a hearing, notice of the time and place of which shall have been given to every employer alleged to be liable for any portion of such compensation. If the board find that any portion of such compensation is payable by an employer prior to the employer who is made liable to the total compensation as provided by this section, it shall make an award accordingly in favor of the last employer, and such award may be enforced in the same manner as an award for compensation.

SEC. 45. *Notice to employers.*—The employer to whom notice of death or disability is to be given, or against whom claim is to be made by the employee, shall be the employer who last employed the employee during the said 12 months in the employment to the nature of which the disease was due and such notice and claim shall be deemed seasonable as against prior employers. The requirements as to notice as to occupational disease and death resulting therefrom shall be the same as required in section 18 of this chapter, except that the notice shall be given to the commissioner and the employer within 90 days after the disablement.

SEC. 46. *Information; penalty.*—The employee or his dependents, if so requested, shall furnish the last employer or the board with such information as to the names and addresses of all his other employers during the said 12 months, as he or they may possess; and if such information is not furnished, or is not sufficient to enable such last employer to take proceedings against a prior employer under section 44, unless it be established that the disease actually was contracted while the employee was in his employment, such last employer shall

not be liable to pay compensation, or, if such information is not furnished or is not sufficient to enable such last employer to take proceedings against other employers under section 44, such last employer shall be liable only for such part of the total compensation as under the particular circumstances the board may deem just; but a false statement in the information furnished as aforesaid shall not impair the workman's rights unless the last employer is prejudiced thereby.

SEC. 47. *Presumption as to the cause of disease.*—If the employee, at or immediately before the date of disablement, was employed in any process mentioned in the second column of the schedule of diseases in subdivision 2 of section 3, and his disease is the disease in the first column of such schedule set opposite the description of the process, the disease presumptively shall be deemed to have been due to the nature of that employment.

SEC. 48. *Diseases which are accidents.*—Nothing in this article shall affect the rights of an employee to recover compensation in respect to a disease to which this article does not apply if the disease is an accidental personal injury within the meaning of subdivision 7 of section 2 of this chapter.

NORTH DAKOTA

(Acts of 1919, ch. 162, sec. 2, as amended 1921, ch. 142; 1925, ch. 222)

"Injury" means only an injury arising in the course of employment, including an injury caused by the willful act of a third person directed against an employee because of his employment, but shall not include injuries caused by the employee's willful intention to injure himself or to injure another. The term "injury" includes in addition to an injury by accident, any disease proximately caused by the employment.

OHIO

(Gen. Code, sec. 1465-68a, added 1921, p. 181, as amended 1929)

SEC. 1465-68a. Every employee who is disabled because of the contraction of an occupational disease as herein defined, or the dependent of an employee whose death is caused by an occupational disease as herein defined, shall, on and after July 1, 1921, be entitled to the compensation provided by sections 1465-78 to 1465-82, inclusive, and section 1465-89 of the General Code, subject to the modifications hereinafter mentioned: *Provided*, That no person shall be entitled to such compensation unless for 90 days next preceding the filing of a claim for compensation the employee has been a resident of the State of Ohio, or for 90 days next preceding the filing of a claim for compensation has been employed by an employer required by the workmen's compensation law of Ohio to contribute to the occupational disease fund of Ohio for the benefit of such employee, or to compensate such employee directly under the provisions of section 1465-69 of the General Code.

The following diseases shall be considered occupational diseases and compensable as such, when contracted by an employee in the course of his employment in which such employee was engaged at any time within 12 months previous to the date of his disablement and due to the nature of any process described herein:

SCHEDULE

DESCRIPTION OF DISEASE OR INJURY	DESCRIPTION OF PROCESS
1. Anthrax.....	Handling of wool, hair bristles, hides and skins.
2. Glanders.....	Care of any equine animal suffering from glanders; handling carcass of such animal.
3. Lead poisoning.....	Any industrial process involving the use of lead or its preparation or compounds.
4. Mercury poisoning.....	Any industrial process involving the use of mercury or its preparations or compounds.
5. Phosphorus poisoning.....	Any industrial process involving the use of phosphorus or its preparations or compounds.

DESCRIPTION OF DISEASE OR INJURY	DESCRIPTION OF PROCESS
6. Arsenic poisoning-----	Any industrial process involving the use of arsenic or its preparations or compounds.
7. Poisoning by benzol or by nitro and amido derivatives of benzol (di-nitro-benzol, anilin, and others).	Any industrial process involving the use of benzol or a nitro or amido derivative of benzol or its preparations or compounds.
8. Poisoning by gasoline, benzine, naphtha, or other volatile petroleum products.	Any industrial process involving the use of gasoline, benzine, naphtha, or other volatile petroleum products.
9. Poisoning by carbon bisulphide----	Any industrial process involving the use of carbon bisulphide or its preparations or compounds.
10. Poisoning by wood alcohol-----	Any industrial process involving the use of wood alcohol or its preparations.
11. Infection or inflammation of the skin on contact surfaces due to oils, cutting compounds or lubricants, dust, liquids, fumes, gases, or vapors.	Any industrial process involving the handling or use of oils, cutting compounds or lubricants, or involving contact with dust, liquids, fumes, gases, or vapors.
12. Epithelioma cancer or ulceration of the skin or of the corneal surface of the eye due to carbon, pitch, tar, or tarry compounds.	Handling or industrial use of carbon, pitch or tarry compounds.
13. Compressed-air illness-----	Any industrial process carried on in compressed air.
14. Carbon dioxide poisoning-----	Any process involving the evolution or resulting in the escape of carbon dioxide.
15. Brass or zinc poisoning-----	Any process involving the manufacture, founding or refining of brass or the melting or smelting of zinc.
16. Manganese dioxide poisoning-----	Any process involving the grinding or milling of manganese dioxide or the escape of manganese dioxide dust.
17. Radium poisoning-----	Any industrial process involving the use of radium and other radioactive substances, in luminous paint.
18. Tenosynovitis and pre-patellar bursitis.	Primary tenosynovitis characterized by a passive effusion or crepitus into the tendon sheath of the flexor or extensor muscles of the hand, due to frequently repetitive motions or vibration, or pre-patellar bursitis due to continued pressure.

PHILIPPINE ISLANDS

(Pub. Laws, vol. 23, Act No. 3428, p. 415. Effective June 10, 1928)

SEC. 2. When any employee receives a personal injury from any accident due to and in the pursuance of the employment, or contracts any illness directly caused by such employment or the result of the nature of such employment, his employer shall pay compensation in the sums and to the persons hereinafter specified.

PORTO RICO

(Acts of 1928, act No. 85, sec. 3)

B. In case of occupational disease, the laborer shall be entitled to—

1. *Medical attendance.*—Medical attendance and such medicines and sustenance as may be prescribed, including hospital service when necessary.

2. *Temporary illness.*—If the disease is of temporary character, to compensation equal to one-half the wages received by him when taken sick, for such time as he may be under medical treatment, but such payments shall not extend over a period greater than 102 weeks. In no case shall there be paid more than \$15

or less than \$3 a week; *Provided*, That no compensation shall be allowed for the first seven days following the date of the accident.

3. *Permanent partial disability*.—If, by reason of the disease contracted, the laborer should be partially and permanently disabled for work, he shall receive such additional compensation as the commission may determine according to the seriousness of the disability of the person injured, and as far as possible, according to the accident schedule provided in this act.

4. *Total disability*.—If, by reason of the disease contracted, the laborer should be totally disabled for work, he shall be entitled to a compensation of not less than \$1,000 nor more than \$3,000.

All the provisions of paragraphs 3, 4, and 5, of subhead A of this section shall be applicable to subhead B.

Table of occupational diseases and their causes.—The diseases enumerated in the following table shall be considered as occupational diseases when contracted by laborers or employees in the course of the occupations therein stated, within the 12 months prior to the date of the disability caused by such diseases due to the nature of any of the processes described in said table:

NAME OF DISEASE	DESCRIPTION OF PROCESS
1. Anthrax.....	Handling of wool, hair bristles, hides, and skins.
2. Glanders.....	Care of any equine animal suffering from glanders; handling carcass of such animal.
3. Lead poisoning.....	Any industrial process involving the use of lead or its preparations or compounds.
4. Mercury poisoning.....	Any industrial process involving the use of mercury or its preparations or compounds.
5. Phosphorus poisoning.....	Any industrial process involving the use of phosphorus or its preparation or compounds.
6. Arsenic poisoning.....	Any industrial process involving the use of arsenic or its preparations or compounds.
7. Poisoning by benzol or by nitro and amido derivatives of benzol (dinitro-benzol, anilin, and others).	Any industrial process involving the use of benzol or a nitro or amido derivative of benzol or its preparations or compounds.
8. Poisoning by gasoline, benzine, naphtha, or other volatile petroleum products.	Any industrial process involving the use of gasoline, benzine, naphtha or other volatile petroleum products.
9. Poisoning by carbon bisulphide....	Any industrial process involving the use of carbon bisulphide or its preparations or compounds.
10. Poisoning by wood alcohol.....	Any industrial process involving the use of wood alcohol or its preparations.
11. Infection or inflammation of the skin on contact with compound cutting oils or lubricants, dust, liquids, fumes, gases, or vapors.	Any industrial process involving the handling or use of compound cutting oils or lubricants, or involving contact with liquids, fumes, gases, or vapors.
12. Ulceration of the skin or of the corneal surface of the eye due to carbon, pitch, tar, or tarry compounds.	Handling or industrial use of carbon, pitch, or tarry compounds.
13. Compressed-air illness.....	Any industrial process carried on in compressed air.
14. Carbon dioxide poisoning.....	Any process involving the evolution, or resulting in the escape, of carbon dioxide.
15. Brass or zinc poisoning.....	Any process involving the manufacture, founding, or refining of brass or the melting or smelting of zinc.

WISCONSIN

(Stats. 1923, sec. 102.35)

102.35. The provisions of sections 102.01 to 102.34, both inclusive, are extended so as to include, in addition to accidental injuries, all other injuries, including occupational diseases, growing out of and incidental to the employment.

FEDERAL CIVIL EMPLOYEES

(Acts of 1915-16 (39 Stats. at Large, 742), sec. 40, as amended 1924, ch. 261)

The term "injury" includes, in addition to injury by accident, any disease proximately caused by the employment.

FEDERAL LONGSHOREMEN'S AND HARBOR WORKERS' COMPENSATION ACT

(44 Stat. 1424)

(2) The term "injury" means accidental injury or death arising out of and in the course of employment, and such occupational disease or infection as arises naturally out of such employment or as naturally or unavoidably results from such accidental injury, and includes an injury caused by the willful act of a third person directed against an employee because of his employment.

Statistics

EACH State allowing compensation awards for occupational diseases operates under legislation the phraseology of which is different from that of other States. Amendments in several of the States have made the decisions of courts confusing, as the decisions based upon the language of the statute in effect at the time of the existence of a particular phrase which allows compensation may be of little or no value or worse in that they merely confuse when the language of the statute has been amended.¹

Statistics have been gathered showing the experience of several of the States which allow workmen's compensation awards in cases of occupational diseases. These statistics are necessarily to be handled with great care because in some instances they merely represent occupational diseases reported or on which claims have been filed; in these latter cases the statute requiring the reporting of diseases and placing a limitation on the time within which claims can be filed should be examined. Some States present statistics on cases decided during the period covered, while others report only claims on which final awards have been made and the cases have been closed.

The statistics presented by several States give us figures on occupational diseases according to the nature of the injury, while other States give us figures based upon the cause of the injury. Many States classify the diseases according to the regular classifications of fatal cases, permanent partial disabilities, and temporary total disabilities.

In presenting figures the several States are interested in different phases of the problem. Some States show merely the number of occupational diseases, others show the amount of compensation allowed or paid, and others include medical cost, while still another group gives us some figures on time lost in days.

In any discussion of the subject of occupational diseases we should carefully distinguish between occupational diseases known as such

¹ For decisions of courts see Workmen's Compensation Laws, separate pamphlets for each State, published by F. Robertson Jones, 1 Park Avenue, New York City.

and other diseases which are sometimes included in occupational disease classifications, such as freezing and heat prostrations. In some instances cases of typhoid, where the employee drank impure water supplied by the employer at the place of employment, are reported under this classification. Still another confusing factor is that of a disease which develops from an accidental injury but which did not exist at the time of the accident. This in turn should not be confused with diseases which were dormant at the time of the accident, but due to the accident and to the weakened condition of the worker, the disease disabled the employee for a much longer period than a healthy person would have been disabled.

Concerning the relative cost of occupational diseases the statistics presented below are valuable, in that the experience of the States operating under workmen's compensation laws which allow awards for occupational diseases does not seem to show that the cost is as high as is sometimes believed.

The chairman of the Industrial Commission of Wisconsin, Fred M. Wilcox, in a letter dated September 10, 1928, addressed to the chairman of the Industrial Commission of Utah, O. F. McShane, reviewed the experience of Wisconsin under the "diseases of occupation" amendment to the compensation law, as follows:

The Wisconsin act does not contain the schedule of compensation diseases that is found in a number of other acts. It is sufficient to make them compensable to show that the disease grew out of the employment and that the parties at the time were subject to the compensation act. I have no patience with the schedule provisions. Clearly, the intent of such plan of legislation is to deny compensation benefits to anyone who acquires from the industry a disease which is not listed in the schedule. If one will check back into the history of such schedules, they will undoubtedly find that the principal reason for that plan of legislation was to make certain that liability did not attach for tuberculosis and pneumoconiosis. I believe such action indefensible because the sand-blasting, stone-cutting, grinding and polishing operations are actually producing these two types of disease and are, after all, the most serious of all industrial diseases.

No clearer type of industrial hazard is known and there is no surer result to employees who are exposed to this hazard without protection than tuberculosis and pneumoconiosis. Furthermore there is no kind of industrial injury that has higher moral demand for compensation than the injuries which employees in these occupations are suffering. Employers can protect their men against this hazard if they will. And they will, when it costs them dearly to neglect the situation. The practical results of the operation of a schedule are not less discriminatory than would be a provision under compensation for scaffold accidents which paid benefits only for those injuries in which employees who fall light upon their feet and not for those cases where they land on their head.

After all, the experience in all the States that have these provisions covering all or a portion of the diseases of occupation is not such as to excite industry against coverage legislation. Protection against such injuries may be made more certain than for accidental injuries. The fatuitous element is not present and if benefits are made payable for such injuries, employers will find ways and means of eliminating the hazards.

Recently I had Mr. Fried, chief statistician for our commission, make a tabulation for the seven years, 1920 to 1926, inclusive, and that tabulation I am inclosing herewith. You will agree with me that out of a State experience which produces from 20 to 25 thousand injuries each year occasioning more than one week of disability, the number of cases which fall within the classification of diseases of occupation are small and since the annual benefits for indemnity and medical aid approximate \$5,000,000, you will also agree that the liability of the employers is not such as to deter them from agreeing to coverage legislation.

I would like to call attention to the fact that in this tabulation, we have included all the so-called diseases as distinguished from strictly so-called accidents. That means that we are including in the list a certain number of diseases which under the laws of all States, so far as I know, are compensable as accidents; for

example, all cases of caisson disease I think are agreed to be compensable as accidents; likewise, typhoid fever, and generally speaking cases of carbon monoxide poisoning, also cases of freezing and heat prostration where sustained under circumstances making them compensable.

It follows that the actual number of cases that become compensable under our "diseases of occupation" amendment, and the cost thereof, are materially less than indicated in this tabulation.

At the time our amendment was adopted, we undertook to provide for it in insurance rates by adding one cent to the final rate; for example, if the established rate for accidental injuries was 50 cents, it was thereafter computed at 51 cents. If the rate had been \$1.75 for accidents, it was increased to \$1.76. This, of course, was an unscientific plan because disease hazards do not necessarily attach to industries with high accident hazard. After a year of experience, the loading was dropped out of the rate entirely and Wisconsin makes no adjustment whatever in the rates because of the added coverage. The cost of the diseases is treated as if it were an outlay for pure accidental injury. Ohio has followed a more scientific plan in endeavoring to put the additional loading exactly where it belongs.

The laws of the 11 States and 3 Territories and insular possessions and the 2 Federal laws which allow awards for occupational diseases are listed below chronologically, and in 10 instances references are made to reports published by the State from which occupational disease statistics have been taken. The other 6 jurisdictions do not have statistics or, if available, do not publish statistics or if they do publish them do not classify their figures so as to be used in any analysis of occupational disease awards. The statistics given below are presented for the purpose of showing a comparison between the number and cost of occupational disease cases and the total of all cases. The wide variety in the method of presenting these statistics by the several jurisdictions makes comparison difficult but by dividing the total occupational diseases by the total of all injuries it will be noted that the percentage of diseases as compared with all injuries is inconsiderable.

CALIFORNIA

In the report of the Industrial Accident Commission of the State of California for the fiscal year July 1, 1926, to June 30, 1927, the statistical department presents (p. 133) a table of tabulatable injuries which lasted longer than the day of injury, showing the nature and extent of disability, from which the following figures are taken:

	Occu- pational diseases	All injuries
Fatalities.....	3	763
Permanent disability.....		1, 192
Temporary disability.....	1, 222	91, 326
Total.....	1, 225	93, 281

CONNECTICUT

The Connecticut reports do not contain statistical data on the experience of Connecticut under the occupational-disease schedule of the workmen's compensation law.

DISTRICT OF COLUMBIA

The workmen's compensation law of the District of Columbia became effective July 1, 1928, and although some figures giving an analysis of injuries under the act for the first quarter in which it was

in operation are presented in the twelfth annual report of the United States Employees' Compensation Commission, for the fiscal year from July 1, 1927, to June 30, 1928, the act has not been in operation long enough and the figures presented are not complete enough to be of particular value at the present time.

HAWAII

No statistical data showing the experience of Hawaii under the occupational-disease section of the workmen's compensation law is available in published form.

ILLINOIS

The Industrial Commission of Illinois, in its annual report for the fiscal year July 1, 1924, to June 30, 1925, presents a table (p. 33) showing the nature of injury by cause of accident, from which the following is taken:

	Occupational diseases	All injuries
Fractures.....	2	6, 664
Sprains and strains.....	3	8, 342
Dislocations.....		464
Cuts, punctures, and lacerations.....	4	12, 940
Bruises.....	1	13, 313
Crushed.....		3, 533
Concussions.....		39
Burns and scalds.....	2	2, 642
Traumatic amputations.....		1, 642
Infections.....	48	3, 810
Internal injuries.....	1	50
All other injuries.....	125	677
Electrical shock.....	2	68
Total.....	188	54, 184

KENTUCKY

The Workmen's Compensation Board of the Commonwealth of Kentucky, in its annual report for the fiscal year July 1, 1927, to June 30, 1928, in Table No. 13 (pp. 15, 16) classifies accidents according to the cause from which the following items were taken:

Gas explosions, gas flames, or fumes.....	118
Poisonous gases.....	6
Disease.....	5
All causes.....	23, 395

MASSACHUSETTS

The annual report of the Massachusetts Department of Industrial Accidents for the fiscal year July 1, 1925, to June 30, 1926, contains several tables, one of which (p. 15) presents the injuries by causes and by duration of disability, from which the following is taken:

	Occupational diseases	All injuries
Fatalities.....	10	313
Permanent total disability.....	4	12
Permanent partial disability.....		1, 158
Temporary total disability.....	658	58, 005
Total.....	672	59, 488

Another table (p. 15) gives the distribution of causes by percentages, showing that the 672 injuries caused by occupational diseases amounted to only 1.1 per cent of the total number of 59,488, the percentages for fatalities, permanent total disabilities, and temporary total disabilities from occupational diseases being, respectively, 3.2, 33.3, and 1.1.

The distribution of injuries from the various causes by resultant days lost was presented in another table (p. 17), showing the number of days lost from occupational diseases and from all injuries, which was as follows:

	Occupational diseases	All injuries
Fatalities.....	60, 000	1, 878, 000
Permanent total disability.....	24, 000	72, 000
Permanent partial disability.....	-----	911, 850
Temporary total disability.....	20, 541	1, 416, 392
Total.....	104, 541	4, 278, 242

The days lost from occupational diseases were only 2.4 per cent of those lost from all causes.

MINNESOTA

The fourth biennial report of the Industrial Commission of Minnesota for the period from July 1, 1926, to June 30, 1928, contains a statistical review of the experience of that commission under its workmen's compensation law. The figures in the table below, taken from that report, give a comparison of the number of cases and the total amount of losses (compensation benefits, medical benefits, and net wage losses) for injuries caused by poisonous substances and occupational diseases and for all injuries during the year ending June 30, 1928:

NUMBER OF OCCUPATIONAL DISEASE INJURIES AND OF ALL INJURIES (CLOSED CASES) AND TOTAL AMOUNT OF LOSSES THEREFROM, FOR YEAR ENDING JUNE 30, 1928

Extent of disability	Number of cases		Amount of losses	
	Occupational diseases	All in- juries	Occupational diseases	All in- juries
Fatalities.....	3	158	\$11, 614	\$272, 506
Permanent total disability.....	-----	6	-----	27, 443
Permanent partial disability.....	7	1, 494	13, 931	1, 653, 207
Temporary total disability:				
Beyond 1 week.....	226	15, 108	31, 436	2, 961, 347
1 week or less.....	119	4, 613	1, 839	74, 575
Nondisabling (medical only).....	144	5, 186	1, 003	44, 288
Total.....	499	26, 565	59, 823	5, 033, 366

NEW JERSEY

The Industrial Bulletin for June, 1929, published by the New Jersey Department of Labor, contains an article (p. 6) which includes a table showing occupational disease cases, by causes, among the compensated cases closed during 1928, which is as follows:

OCCUPATIONAL DISEASE CASES CLOSED DURING 1928, BY CAUSES

Causes	Number of cases				Total days disability (weighted)	Total compensation	Number of cases reporting medical cost	Medical cost
	Total ¹	Kind of disability						
		Death or permanent total ¹	Permanent partial	Temporary				
Occupational:								
Anthrax.....	5	1		4	6,093	\$2,832	3	\$68
Arsenic.....	2			2	98	206	2	83
Carbon monoxide.....	8	1	1	6	7,010	6,730	4	680
Compressed air (bends).....	7		4	3	1,865	3,770	3	260
Chrome ulceration.....	5			5	117	198	2	37
Dust.....	1			1	28	44		
Handling and preparing hides, furs, etc.	1			1	16	22		
Heat and light (including heat from asphalt—not burns).....	3			3	40	77		
Lead poisoning.....	(1) 77	(1) 3	6	68	24,221	23,602	41	3,571
Benzol, its homologues and derivatives.....	(1) 18	(1) 4	6	8	36,159	43,973	8	2,419
Occupational activity (cellulitis, etc.) ²	23		2	21	3,143	3,630	9	647
Total.....	(2) 150	(2) 9	19	122	78,790	85,084	72	\$ 7,935

¹ Figures in parentheses show the number of permanent totals included.

² Cellulitis cases due to cuts and bruises from falls or handling objects.

³ As reported; column adds to \$7,765.

The Industrial Bulletin for February, 1929 (p. 10), presents a table showing the number of compensated accidents closed during the year 1927, by cause and industrial group, in which cases of poisonous and corrosive substances and occupational diseases are compared to the total compensated accidents from all causes.

NUMBER OF COMPENSATED ACCIDENTS, 1927, BY CAUSE AND INDUSTRY GROUP

Industry group	Poisonous and corrosive substances and occupational diseases		Total accidents	
	Fatal	Nonfatal	Fatal ¹	Nonfatal
Manufacturing.....	6	277	(6) 90	12,389
Construction.....		98	(4) 62	5,188
Transportation.....	2	19	55	3,755
Trade.....		15	(1) 10	1,548
Clerical.....		8	3	847
Mining.....	2	12	13	536
Agriculture.....		6	5	417
All other.....		14	7	940
Total.....	10	449	(11) 245	25,620

¹ Figures in parentheses show the number of permanent totals included.

NEW YORK

The Department of Labor of the State of New York, in Special Bulletin No. 152 (pp. 111-117), shows the causes of compensated accidents for the 2-year period from July 1, 1924, to June 30, 1926, and contains the following figures for the fiscal year July 1, 1925, to June 30, 1926:

NUMBER AND COST OF COMPENSATED ACCIDENTS FOR THE YEAR ENDED JUNE 30, 1926, BY CAUSES

Causes	Number of cases				Total weeks of disability ²	Total compensation
	Total	Kind of disability				
		Fatal or permanent total ¹	Perma- nent partial	Tem- porary		
Anthrax.....	8	2		6	2,030	\$11,805
Lead poisoning.....	216	3		213	5,002	49,257
Handling and preparing hides, furs, etc.....	5			5	9	132
Mercury.....	3			3	26	515
Dope (lacquers).....	2			2	5	48
Carbon bisulphide.....	1			1	2	47
Amido derivatives of benzol.....	1			1	4	83
Compressed air.....	1			1	9	170
Occupational activity (cellulitis, etc.).....	33			33	172	2,510
Copper and copper salts.....	1			1	5	90
Total, occupational diseases.....	271	5		266	7,264	64,657
Total, all causes.....	99,673	(41) 1,151	17,327	81,195	2,412,760	28,995,476

¹ Figures in parentheses show the number of permanent totals included.

² Each death or permanent total disability was considered as causing 1,000 weeks' disability.

Out of the 271 occupational diseases, 236 were charged to manufacturing, 25 to construction, 4 to trade, 3 to transportation and public utilities, and 3 to clerical and personal service. Of the 25 charged to construction, 22 were lead-poisoning cases.

NORTH DAKOTA

The North Dakota Workmen's Compensation Bureau, in its ninth annual report for the fiscal year July 1, 1927, to June 30, 1928, presented a table showing the distribution of claims by general cause, which was in part reprinted in the Montly Labor Review for March, 1929 (p. 121). The figures as given are under headings so broad that a quotation from the headings "Poisonous substances" or "Miscellaneous" might confuse. In the absence of more detailed information concerning the classification "occupational diseases," no figures are here presented for North Dakota.

OHIO

The annual statistical report issued by the Industrial Commission of Ohio, covering the calendar year 1926, prepared by the division of safety and hygiene, presents tables in which claims are segregated by cause of accident and class of industry. Total figures taken from these tables showing a comparison between occupational disease

claims and all claims are given below. In the report (pp. 570, 590-593) more detailed figures may be found.

	Occupational diseases	Total injuries
Total.....	30	1, 124
Permanent disability.....	1	1, 859
Over seven days.....	707	57, 100
Seven days and under.....	201	36, 034
No time lost.....	443	124, 668
Total.....	¹ 1, 387	220, 785

¹ As reported; column adds to 1,382.

PHILIPPINE ISLANDS

The Philippines workmen's compensation act, enacted on December 10, 1927, became effective six months later, June 10, 1928. No statistical data showing the experience of the Philippine Islands and giving figures on the number of awards made for illness or disease is available in published form.

PORTO RICO

No statistics are available showing the experience of Porto Rico under the occupational-disease section of the workmen's compensation law.

WISCONSIN

The Industrial Commission of Wisconsin in its publication, Wisconsin Labor Statistics, Bulletin No. 12, October 5, 1928, presents a table (pp. 3, 9) showing compensable injuries closed during the calendar year 1927. That part of the table dealing with occupational diseases is presented below, with the total figures for all injuries.

COMPENSABLE INJURIES (CLOSED CASES), 1927, BY CAUSE AND KIND OF DISABILITY

Cause of injury	Number of injuries	Fatal and permanent total disability	Permanent partial disability	Temporary total disability
Metallic poisons.....	36			36
Toxic gases, vapors, and fumes.....	31	3		28
Toxic fluids.....	103			103
Irritant dusts and fibers.....	75	2		73
Germs.....	15			15
Anthrax.....	1			1
Miscellaneous irritants.....	43		2	41
Air compression.....	27	1		26
Extremes of humidity.....	3			3
Extremes of temperature.....	17	1	1	15
Excessive light.....	4			4
Causing inflammation of joints, tendons, and muscles.....	23			23
Occupational diseases or hazards, not otherwise classified.....	19	1	1	17
Total occupational diseases.....	397	8	4	385
Total injuries.....	20, 473	211	1, 848	18, 414

FEDERAL CIVIL EMPLOYEES

No statistics are available on the subject of occupational disease under the Federal employees' compensation act. The statistics showing the operation of this act are principally classified according to the department of the Government rather than the cause or nature of the injury.

FEDERAL LONGSHOREMEN'S AND HARBOR WORKERS' COMPENSATION ACT

The twelfth annual report of the United States Employees' Compensation Commission for the fiscal year July 1, 1927, to June 30, 1928, contains statistics showing the experience of the Federal Government under the operation of the Federal longshoremen's and harbor workers' compensation act during the first year of its operation. No classification is devoted entirely to occupational diseases. Under the classification "poisonous substances" are found the headings "carbon monoxide," "impure water," "lead," "sulphur-dioxide gas," and "all other substances." As the classification is not strictly one of occupational diseases, care should be used in using the figures given, but in the absence of other statistics the figures on poisonous substances are here presented for what they are worth.

	Poisonous substances	Total injuries
Temporary total disabilities:		
Compensated cases-----	17	10, 071
Amount of compensation ⁿ -----	\$913	\$751, 540
Permanent partial disabilities ^s :		
Compensated cases-----		278
Amount of compensation-----		\$118, 881
Fatal cases:		
Compensated cases-----	2	62
Number with dependents-----	2	56
Amount weekly compensation-----	\$29. 77	\$770. 97
Estimated valuation-----	\$14, 262	\$367, 907

Legislative Action on Workmen's Compensation in 1929

AMMENDMENTS to the 1929 workmen's compensation laws appeared for the following States in the Monthly Labor Review for August, 1929: Idaho, Kansas, New York, Texas, Vermont, and West Virginia. Since that time the acts of the legislatures of Iowa, New Jersey, Rhode Island, and Wyoming, have been received and show changes in their respective workmen's compensation laws. The amendments and legislation affecting the workmen's compensation laws in those States are briefly analyzed below.

Iowa

THREE acts were passed by the legislature of Iowa amending the workmen's compensation law. The first (ch. 46) provides that the place of hearing for review of payments or settlements shall be the county where injury was received, instead of at the seat of the Government. The second (ch. 47) raised the maximum allowed for surgical, medical, and hospital care in exceptional cases from \$100 to

\$200. The third (ch. 48) provides for further securing the payment of compensation by certain employers.

New Jersey

ONE act was passed by the Legislature of New Jersey concerning the workmen's compensation law. Provision is now made for notice to parties before dismissal of a petition filed in a compensation case. (Ch. 66.)

Rhode Island

THE principal workmen's compensation legislation of Rhode Island for 1929 is the new provision that compensation payments to the employees of the State board of public roads covered by the compensation act shall be charged against automobile registration and license fees, and orders for the payment of compensation to State employees must now be drawn by the State comptroller instead of by the State auditor. (Ch. 1397.)

Wyoming

THE list of extrahazardous occupations is enlarged to include "restaurant and bakery kitchens where power machinery is used." (Ch. 46.) In cases where deceased workmen have no spouse nor dependent child, but do leave a surviving parent living in the United States, it is now provided that such parent shall be granted \$1,500 instead of \$1,000; where, however, such sole surviving parent is a nonresident alien the parent shall be granted one-third of \$1,500 instead of one-third of \$1,000 as heretofore. (Ch. 48.) An application for an award must be made within five months from the day of the injury instead of three months as heretofore. (Ch. 61.) In permanent disfigurement cases affecting earning capacity a workman may now receive, in proportion to the extent of such disfigurement, an additional lump sum not exceeding \$500. (Ch. 64.) Certain proof is now required in hernia cases before compensation is granted. (Ch. 110.) It is newly provided that an employer failing to furnish a copy of his pay roll to the State treasurer shall be personally liable to the State. Nonresident employers engaged in extrahazardous work shall be deemed from the commencement of the work to have designated the secretary of state their agent for purpose of serving process. (Ch. 119.)

Recent Workmen's Compensation Reports

British Columbia

THE report of the Workmen's Compensation Board of the Province of British Columbia, for the calendar year 1928, contains several tables showing the experience of the Province in administering the local workmen's compensation act. The following table shows the number of closed cases, the extent of disability, and the cause:

NUMBER OF ACCIDENTS (CLOSED CASES) IN BRITISH COLUMBIA, 1928, BY CAUSES AND EXTENT OF DISABILITY

Cause	Temporary total disability	Permanent partial disability	Death	Total
Prime movers.....	46	5	-----	51
Power transmission apparatus.....	158	35	1	194
Power-driven machinery.....	959	151	6	1,116
Hoisting and conveying apparatus.....	792	53	8	853
Miscellaneous machinery.....	72	5	-----	77
Boilers and steam and air pressure apparatus.....	53	2	3	58
Vehicles and water transportation.....	1,237	56	15	1,308
Explosives, electricity, hot or corrosive substances.....	451	21	9	481
Falls of persons.....	3,538	119	18	3,675
Falling, rolling or moving objects.....	4,338	226	36	4,600
Miscellaneous.....	5,028	109	28	5,165
Total.....	16,672	782	124	17,578

Ontario

THE report of the Workmen's Compensation Board for the Province of Ontario, covering the calendar year 1928, contains tables showing the experience of that Province and also a more detailed analysis of its operations during the year 1927. The tables below summarize some of the information contained in the report on the operations for the year 1927:

TABLE 1.—NUMBER OF ACCIDENTS, 1927, BY CAUSE AND BY KIND OF DISABILITY

Cause	Medical aid only	Temporary disability	Permanent disability	Death	Total
Prime movers.....	403	428	86	8	925
Working machines.....	5,273	3,307	750	15	9,345
Hoisting apparatus.....	353	764	130	23	1,270
Dangerous substances.....	1,093	1,369	94	33	2,589
Stepping or striking against objects.....	5,360	2,643	76	2	8,081
Falling objects.....	806	1,501	107	33	2,447
Handling objects.....	5,478	7,785	346	12	13,621
Tools.....	2,330	2,865	188	4	5,387
Runaways and animals.....	80	317	18	3	418
Moving trains, vehicles, etc.....	312	1,155	129	75	1,671
Falls of persons.....	1,664	5,376	316	50	7,406
Other causes.....	4,700	1,326	236	53	6,315
Total.....	27,852	28,836	2,476	311	59,475

TABLE 2.—NUMBER OF CASES OF INDUSTRIAL DISEASES, 1927, BY KIND OF DISABILITY

Disease	Medical aid only	Temporary disability	Permanent disability	Death	Total
Lead poisoning or its sequelae.....	2	33	1	-----	36
Mercury poisoning or its sequelae.....	-----	1	-----	-----	1
Arsenic poisoning or its sequelae.....	-----	1	-----	-----	1
Silicosis.....	2	2	22	3	29
Pneumoconiosis.....	-----	-----	1	-----	1
Compressed-air illness or caisson disease.....	31	40	1	-----	72
Total.....	35	77	25	3	140

Mutual Insurance Institutions in Belgium

A REPORT of the operation of mutual insurance funds in Belgium during 1928 is given in the Belgian *Revue du Travail*, June, 1929 (pp. 837-847).

Mutual associations are organized in Belgium under the law of June 23, 1894, or under the law of July 30, 1923, which provides for the amalgamation of two or more societies or for their dissolution. The societies are either independent organizations or are affiliated to the general savings and retirement fund which is under the protection of the State. Since 1922 there has been a marked tendency towards centralization of the funds, with the consequent elimination of some of the smaller organizations. In 1928 there was a total of 9,163 associations as compared with 10,095 in 1922—the period when the maximum number was reached.

During the past five years 816 associations have been formed and 1,637 dissolved. In regard to sickness insurance the number of primary societies has fallen from a maximum of 4,180 in 1921 to 3,576 in 1928, but the number of members has considerably increased. With a membership of 510,000 at the outbreak of the war the present membership is approximately 1,250,000, of whom 925,000 are affiliated to the disability funds. There are in addition 2,600,000 persons who benefit by the family medical-pharmaceutical service.

Change in Contributions to English Unemployment Insurance Fund

ON JULY 11, 1929, a resolution was introduced in the House of Commons to raise the Government's contribution to the unemployment insurance fund to an equality with the worker's contribution, i. e., 7d. a week for each man. The Minister of Labor explained that this was only a temporary measure, adopted because there would not be time before Parliament adjourned to examine the situation carefully and to decide upon the thoroughgoing adjustments which would probably be found necessary. At the present rate of contributions and payments the fund would be exhausted before the close of the year; the proposed arrangement would carry it through safely, and meanwhile the whole position could be studied and permanent measures prepared for adoption. The measure passed its third reading July 18. (Parliamentary Debates, July 18, p. 780.) The *Economist* (London), in its issue for July 13, comments upon it as follows:

The Government has decided to increase the contribution of the State to the unemployment [insurance] fund to one-half of the aggregate contribution of the employer and the employed person. This will bring the payment from the State into line with the recommendation of the Blanesburgh Committee, which advocated that each of the three parties, the State, the employer, and the workman, should contribute one-third of the total amount. The late Government departed from the proposal of the committee on this point, arguing that the Treasury could not in the circumstances bear so heavy a burden. Miss Margaret Bondfield, the Minister of Labor in the new Government, was a member of the Blanesburgh Committee, whose report was unanimous. The 1927 act fixed the weekly contribution in respect of a man at 1s. 9d., of which the employer pays 8d., the workman 7d., and the State 6d., until the debt to the treasury should

have been paid off. The effect of raising the exchequer contribution from 6d. to 7d. will be to increase the annual payment from the State from £12,000,000 to £15,500,000, and the annual revenue of the fund from £43,000,000 to £46,500,000. The fund balances itself when about 1,000,000 persons are on the live register, but the present figure is still more than 100,000 above that, and at the end of last month the debt of the fund amounted to £36,620,000.

OLD-AGE PENSIONS

Proposed Pension Plan for California State Employees

CALIFORNIA, which has recently adopted an old-age pension plan for its needy citizens, is considering a pension plan for its own employees. In 1927 its legislature authorized (Stats. of 1927, ch. 431) the appointment of a commission to inquire into the subject, with special reference to the cost of maintaining a pension system. The commission was duly appointed and organized, held public hearings, canvassed the whole situation, secured actuarial studies of the cost of different plans, and under date of December 31, 1928, handed in a report¹ recommending the establishment of a pension plan supported as to current and future liabilities by contributions from both the State and the employees, with the State assuming the full burden of the accrued liabilities. Teachers, for whom a State pension plan already exists, are excluded from the system, and so are employees of a few other classes, but with these exceptions the plan would be compulsory on all. Retirement would be optional at 60, after a minimum of 20 years' service, and compulsory at 70, except for those already in the service, for whom the age might be extended. The normal age for retirement is taken as 65, but it was felt that some flexibility was desirable.

Contributions and Benefits

EMPLOYEES would contribute, in the form of deductions from each regular pay or salary check, a percentage of the salary based on the employee's sex and on age at entering the service, or, in the case of those already employed, on age at the time the plan is adopted. All salary over \$5,000 a year is omitted from calculation. For males the percentage to be contributed ranges from 2.62 for those entering the service at 16 to 6.16 at 64; for females the corresponding percentages are 2.77 and 7.02. The State would contribute 3.08 per cent of its salary roll to meet the cost of current services, 2.53 per cent for accrued liability and extra benefits, making its total contribution 5.61 per cent, or, on the basis of the present salary list, a cost for the first year of \$744,473.

The benefits would be service retirement allowances, disability retirement allowances, withdrawal benefits, and death benefits. The service retirement allowance would consist of an annuity bought with the retirant's accumulated contributions plus a pension bought with the State's accumulated contributions on his behalf. The contributions have been so calculated that an employee who enters after the system is established will receive, if he retires at 65, an allowance

¹ California. Commission on Pensions of State Employees. Report. Sacramento, 1929.

amounting to one-seventieth of his average salary for the last five years (omitting from calculation all over \$5,000) multiplied by his years of service; if he elects to retire at 60 or at 70, the allowance will be correspondingly smaller or larger. Those already in the service when the system is adopted will receive the annuity and pension purchasable by the accumulated contributions to their credit, plus an additional pension in respect of their prior service.

When an employee quits the service of the State for any reason except disability or service retirement, he will receive in one sum all his contributions with their interest accumulations, but the State's contributions on his behalf will remain a part of the retirement fund.

Disability retirement allowance is to be paid in case of disability after a minimum of 10 years' service, whether or not the disability is traceable to the employment. It consists of the annuity purchasable by the retirant's accumulated contribution, plus such a pension from the State as will bring the total to 90 per cent of one-seventieth of his final salary multiplied by the number of years of service.

The death benefit is paid only when the accumulated contributions of an employee dying in service are less than \$500, in which case the State adds a sum sufficient to bring them up to that amount and turns the whole over to the decedent's representative or beneficiary.

Options are offered to each service retirant, allowing him, if he wishes, to make some provision for his dependents at the cost of a smaller allowance for himself.

Safeguarding the Employees' Interest Under Industrial Pension Plans

THE chief arguments against industrial pensions have been that they tend to bind the employee to the particular enterprise, thus limiting his choice of employment, and that they engender a false sense of security on the part of the employee. Practically all of the establishment plans contain a clause stating that the plan may not be construed as a contract giving an employee the right to a pension and the right is reserved to alter, amend, or withdraw the plan at any time without liability on the part of the company. This provision usually is not stressed, however, by the company and the employee may not realize therefore that there is always the possibility that a pension will not be forthcoming when the time arrives for it to become payable.

An article on industrial and state pensions in the Service Letter on Industrial Relations, June 5, 1929, published by the National Industrial Conference Board (Inc.), discusses the relative merits of industrial and State pension systems and points to the plan of the Western Clock Co. as a constructive effort to meet the objections which can validly be brought against industrial pensions.

The plan,² briefly stated, provides that a yearly paid-up pension to which the employee contributes is purchased by the company for each employee having at least two years' service with the company who chooses to become a member. The benefit paid for by the employee

² A sound basis for pension plans, by E. C. Roth. Presented at a meeting of the National Civic Federation in New York City, April 29, 1927.

is called "income" and the benefit paid for by the company is called "pension." The income benefit consists of a level premium deferred annuity which will become effective upon retirement at the age of 65 for the remainder of the employee's life provided he has kept up his payments on the premium. The policy may be continued if the employee leaves the service of the company, or it may be converted into a paid-up policy at a reduced face value. The pension, the cost of which is entirely paid by the company, is in the form of a small paid-up deferred annuity for each employee who continues his membership throughout each year. The insurance company holding the policy issues a stamp for the amount of each year's annuity and these stamps are affixed to the contract certificate. The sum of the stamps purchased by the company and with the income purchased by the employee constitutes the pension when the employee finally retires. The pension stamp remains in full force and effect as long as an employee leaves his contributions in the fund even though he leaves the service of the company and whether or not he continues to pay the premium for his income or takes a paid-up annuity and ceases further payments. In other words, as long as he does not withdraw his contributions the pension stamp is good for an annual pension equal to the amount stated on the stamp. An employee may take a cash surrender value on his income but this of course removes him from further participation in the plan.

In concluding the article in the Service Letter it is said:

This is perhaps the forerunner of some reciprocal plan operated by insurance companies, or by some central body which will permit service in whatever company to count proportionally toward a retirement annuity to which the employee contributes throughout his working life, and to which each employer contributes in proportion to the individual's service in the particular establishment. Admittedly, such a solution seems visionary for many reasons. A very small proportion of employers of labor are now providing pensions, and any reciprocal plan is dependent upon a very general adherence to the pension principle. It is difficult to conceive of any such widespread adoption of pension plans without some form of compulsion. The actuarial problems and details of administration would be very complex. However, if industrial pensions are to serve as an adequate solution of the social problem of old-age dependency, their effectiveness in geographic coverage and in coverage of the working population will need to be materially increased.

Old-Age Pensions in South Africa

THE Official Year Book of the Union of South Africa for the year 1927-28 contains a brief account of the work done under the old-age pension act passed in 1928, and effective January 1, 1929. Pensions were to be given to white and colored persons (not to Asiatics or to aboriginal natives) 65 years old and upward, domiciled and resident in the Union, who have been British subjects for 5 years and ordinarily resident in the Union for 15 out of the 20 years preceding the application, provided the yearly income does not exceed £51 (\$248) in the case of a white and £33 (\$161) in the case of a colored person.

By the end of February of this year, 37,000 applications had been received, of which 36,000 had been determined and the remainder were under investigation. Some 2,074 claims had been rejected, 841 because the applicants were under the prescribed age, 338 for

lack of naturalization, 671 because the applicants did not meet the means qualification, 120 as being aboriginal natives, and the remainder for various reasons, among which domicile and residence led.

Pensions had been granted to 33,630 of whom 25,529 were whites and 8,101 colored. Of the whites, 23,525 received the maximum pension possible, £30 (\$146) per annum, and 2,004 received amounts between £3 (\$15) and £24 (\$117) per annum; of the colored, 7,779 received the maximum pension allowed the colored, £18 (\$88) per annum, and 322 received amounts varying from £3 (\$15) to £15 (\$73) per annum.

In the estimates and supplementary estimates of expenditure for the financial year 1928-29, £225,000 [\$1,094,963] were provided to meet the cost of old-age pensions as from January 1 to March 31, 1929. It is anticipated that the expenditure in 1929-30 on these services will be over £900,000 [\$4,379,850].

LABOR LAWS AND COURT DECISIONS

Chinese Conciliation and Arbitration Law of 1929

Translated by S. K. SHELDON TSO

THE Chinese conciliation and arbitration law, effective June 9, 1929, provides that the proper authorities, upon becoming cognizant of disputes between labor and capital and upon petition of either party or both parties concerned, shall summon a conciliation committee. In case of necessity, it may be done without the petition of either party. If conciliation fails, the case shall be submitted to an arbitration committee when the parties to the controversy so petition. In a serious dispute which has extended over a month the proper authorities may refer such case to an arbitration committee without the petition of the parties concerned. When, in disputes between labor and capital, recourse has not previously been had to the conciliation procedure under the act, such disputes shall not be submitted to an arbitration committee except by mutual agreement of the parties concerned.

Failure of either party to the controversy to abide by the decisions or awards which are deemed contracts of labor shall entail a fine of not more than \$200 or imprisonment for not more than 40 days.

A translation of the Chinese conciliation and arbitration law follows:

CHAPTER 1.—*General provisions*

ARTICLE 1. This act shall apply to disputes arising out of the continuation or change of conditions of employment between employers' organizations and workers' organizations of more than 30 workers.

ART. 2. Unless specially provided, the term "proper authorities" in this law shall mean the special municipal government in special municipalities; the district (*hsien*) government in a district; and the ordinary municipal government in ordinary municipalities.

Special municipality shall mean a municipality directly under the control of the central government and ordinary municipality shall mean a municipality directly under the control of the provincial government.

ART. 3. The proper authorities, upon becoming cognizant of disputes between labor and capital and upon the petition of either or both parties concerned, shall summon a conciliation committee for conciliation. In case of necessity, the proper authority may do the same even without the petition of any party.

The decision of a conciliation committee shall not be binding except with the agreement of the parties to the controversy. After being agreed to, however, the decision shall be deemed a contract of labor and binding upon the parties concerned.

If the aforesaid decision expressly provides a time limit for its enforcement, neither party concerned in the decision shall be allowed to petition for any alteration of the same unless such decision is nullified through judicial procedure.

ART. 4. If conciliation fails to settle disputes between labor and capital in any of the following enterprises, the case shall be referred to an arbitration committee for arbitration:

1. The manufacture of ammunition for military purposes directly under the control of military administrative authorities.

2. Public utilities such as waterworks, electric lights, or gas supplies.

3. Public utilities such as the postal service, the telegraph, telephone, railways, tramcars, shipping, and omnibus services.

ART. 5. If conciliation fails to settle the disputes between labor and capital in industries other than the enterprises mentioned in the preceding section, the case shall be submitted to an arbitration committee for arbitration when parties to the controversy so petition. The proper authorities, however, when realizing the significance and seriousness of a case which has extended over a month may, whenever necessary, refer such case to an arbitration committee for arbitration without the petition of the parties concerned.

ART. 6. When, in disputes between labor and capital, recourse has not previously been had to the conciliation procedure under the act, such disputes shall not be submitted to an arbitration committee for arbitration except by the mutual agreement of both parties concerned.

ART. 7. The award of an arbitration committee shall be carried out by the parties to the controversy, and such award shall be regarded as a contract between labor and capital. If the aforesaid award expressly provides a time limit for its enforcement, neither party concerned in the dispute shall be allowed to petition for any alteration of the award unless it is nullified through judicial procedure.

CHAPTER 2.—Committees for settling disputes between labor and capital

DIVISION 1.—CONCILIATION COMMITTEES

ART. 8. The conciliation of disputes between labor and capital shall be carried on by a conciliation committee.

ART. 9. A conciliation committee shall consist of five or seven members—the following representatives:

1. One or three representatives of the proper authorities;

2. Two representatives of each of the parties to the controversy.

The representatives mentioned in the preceding subsection 1 shall not be confined to the staff of the proper offices.

ART. 10. When a dispute between labor and capital is submitted to a conciliation committee for conciliation in conformity with the provision of article 3, paragraph 1, the parties concerned shall, upon receipt of the notice from the proper authorities, elect or appoint their representatives and submit their names and addresses within three days.

The proper authorities may, in case of necessity, extend the time limit for electing or appointing representatives, and may designate representatives for the parties concerned if the names and addresses of the representatives are not submitted within the time limit.

ART. 11. The proper authorities shall summon a conciliation committee as soon as its members are elected or appointed. The representative or one of the representatives sent by the proper authorities shall be the chairman. But in the case of a conciliation committee as provided in article 13, paragraph 3, one of the representatives appointed by the Ministry of Industry, Commerce, and Labor shall be the chairman.

If conciliation is not carried out because the members of the conciliation committee failed to appear after being summoned, the case shall be considered to have gone through the procedure of conciliation without result.

ART. 12. The chairman of a conciliation committee shall have the authority to use the clerks in local administrative offices for keeping minutes and records, compiling and drafting documents, and taking charge of odd jobs.

ART. 13. If a dispute between labor and capital comes under the control of two or more proper authorities which are in the same Province, the proper authorities specified in article 9, subsection 1, shall be designated by the provincial government, and the representatives specified in the same subsection may be so appointed when necessary.

If such a dispute between labor and capital does not come under the jurisdiction of one Province, the proper authorities specified in article 9, subsection 1, shall be designated by the Ministry of Industry, Commerce, and Labor.

In the aforementioned case, the Ministry of Industry, Commerce, and Labor may appoint, in case of necessity, the representatives specified in article 9, subsection 1.

DIVISION 2.—ARBITRATION COMMITTEES

ART. 14. Arbitration of disputes between labor and capital shall be carried on by an arbitration committee.

ART. 15. An arbitration committee shall consist of the following representatives:

1. One representative from the provincial government or the special municipal government.
2. One representative from the provincial quarter of Kuomintang or the special municipal quarter of Kuomintang.
3. The president of the local judicial court or his representative.
4. One disinterested representative of each of the parties to the controversy.

ART. 16. In June of every year the provincial government and the special municipal government shall order labor organizations and employers' organizations in their governing district to submit for approval a list of 15 to 30 persons as candidates for arbitration committees. In case of an arbitration the proper authorities shall designate from this list the disinterested representatives specified in the preceding article, subsection 4.

The provincial government or special municipal government shall submit for registration a list of names of the members of the arbitration committee approved in the manner prescribed in the preceding article to the Ministry of Industry, Commerce, and Labor.

ART. 17. Those who have served as members of a conciliation committee shall not be members of an arbitration committee for the same dispute.

ART. 18. An arbitration committee shall be summoned by the provincial government and its representative shall be the chairman; in a special municipality, the committee shall be summoned by the special government and its representative shall be the chairman; if an arbitration committee be summoned in the manner prescribed in article 20, paragraph 2, the representative of the Ministry of Industry, Commerce, and Labor shall be the chairman.

ART. 19. The chairman of an arbitration committee shall have authority to use the clerks of the administrative offices or of the local judicial court for keeping minutes and records, compiling and drafting documents, and taking charge of odd jobs.

ART. 20. If a dispute between labor and capital does not come under the jurisdiction of one Province or one special municipality, the provincial government or special municipal government specified in article 15, subsection 1, shall be designated by the Ministry of Industry, Commerce, and Labor.

In the aforementioned case, the representatives specified in article 15, subsection 1, may be appointed by the Ministry of Industry, Commerce, and Labor when necessary; the representative specified in the same article, subsection 2, may be appointed by the central Kuomintang quarter, and the representative specified in the same article, subsection 4, may be appointed by the Ministry of Industry, Commerce, and Labor from the members of the arbitration committee of each Province or special municipality.

CHAPTER 3.—*Proceedings for settling disputes between labor and capital*

DIVISION 1.—CONCILIATION COMMITTEE

ART. 21. When the parties to the controversy apply for conciliation, a written application shall be submitted to the proper authorities.

ART. 22. The application shall contain the following:

1. The names, occupation, and addresses of the applicants or names of commercial establishments and factories; in the case of organizations, the names and addresses of their officers;
2. The number of laborers involved in the dispute;
3. The essential points of the controversy.

ART. 23. When the proper authorities submit a case for conciliation without the application of the parties to the controversy, such proper authorities shall communicate to the parties concerned in a written statement the points at issue for conciliation.

ART. 24. A conciliation committee shall, within two days after being summoned, investigate the following points:

1. The facts which have given rise to the dispute;
2. The written applications submitted by the parties concerned and other documents relative to the controversy;
3. The present circumstances of the parties to the controversy;

4. The other points necessary for investigation.

Unless required by particular circumstances the time allowed for investigation shall not exceed seven days.

ART. 25. For the purposes of such investigation a conciliation committee may subpoena witnesses or persons involved to give oral or written testimony.

ART. 26. A conciliation committee may investigate or question the factories or commercial establishments involved.

ART. 27. A conciliation committee shall under no circumstance reveal secrets obtained through the investigation.

ART. 28. A conciliation committee shall, after the completion of the investigation, render a decision within two days. This time limit may be extended if particular circumstances require such extension, or if both parties concerned agree thereto.

ART. 29. The decision of a conciliation committee shall be rendered by majority vote of a quorum of the committee, and the committee shall within two days send such decision to the parties concerned and to the proper authorities for registration.

DIVISION 2.—ARBITRATION PROCEEDINGS

ART. 30. When parties to the controversy apply for arbitration, a written application shall be submitted to the proper authorities.

In case the aforementioned proper authorities are a special municipal government, they shall summon the arbitration committee as soon as the application is submitted; in case the proper authorities are the district government or the ordinary municipal government, the application for arbitration and attached documents, if any, shall be transmitted to the provincial government for execution.

The provincial government, upon receipt of the transmitted application for arbitration and other documents, if any, shall immediately summon the arbitration committee either to the provincial capital or to the locality where the dispute occurs.

ART. 31. If conciliation fails to settle the dispute, the parties to the controversy may submit the case for arbitration. The application shall contain the following:

1. The names, occupations, and addresses of applicants, or the names of commercial establishments or factories; in case of organizations, the names and addresses of their officers;
2. The decision rendered and the points at issue;
3. The reasons for disagreement;
4. A statement concerning how the abrogation or alteration of the original decision shall be made.

ART. 32. If the dispute is submitted for arbitration directly by the parties concerned, the application shall contain the particulars prescribed in article 22.

ART. 33. The provisions of articles 23 to 29 shall apply to arbitration proceedings.

ART. 34. The parties to the controversy may arrive at an agreement at any time while arbitration proceedings are in progress, but the terms of such agreement shall be submitted to the arbitration committee for approval.

CHAPTER 4.—*Limitation on actions of the parties to the dispute*

ART. 35. It shall be unlawful for either the employers or the workers described in article 4 to have a lockout or a strike while conciliation or arbitration is in progress.

The employers or the workers of any industrial or commercial establishments shall not start a lockout or strike during the period of conciliation or arbitration.

No employer of any industrial or commercial establishments shall discharge employees during the period of conciliation or arbitration.

Conciliation or arbitration proceedings shall begin on the day following the notice summoning a conciliation committee or an arbitration committee.

ART. 36. It shall be unlawful for laborers or labor organizations to do the following acts:

1. To seek to close commercial establishments or factories;
2. To take away or damage the property of commercial establishments or factories;
3. To compel other workers to strike.

ART. 37. The question of wage payment during a strike shall be settled by the conciliation committee or the arbitration committee at the same time as other points at issue.

CHAPTER 5.—*Penalties*

ART. 38. Failure of either party to the controversy to abide by the decisions or awards which are deemed contracts of labor as prescribed in article 3, paragraph 2, shall entail a fine of not more than \$200 or imprisonment for not more than 40 days.

The cases referred to in the preceding paragraph may be taken by either party to the controversy to a judicial court for enforcement in accordance with the provisions of civil law.

ART. 39. In case of violation of the provisions of articles 35 and 36 by the parties to the controversy, the proper authorities and a conciliation committee or an arbitration committee may intervene whenever necessary.

Those who resist the intervention of the proper authorities and the conciliation committee or arbitration committee shall be liable to the penalty prescribed in the preceding article, and their acts of a criminal nature shall be punished in conformity with criminal law.

ART. 40. Any person committing any of the following acts shall be fined not more than \$100:

1. Violation of the provision of article 25 by persons who are summoned and fail to appear or to submit testimony in writing.

2. Violation of the provision of section 27.

If the violation in the preceding paragraph takes the form of a criminal action it shall be punished in conformity with the criminal law.

ART. 41. Any person committing any of the following acts shall be fined not more than \$100, but witnesses making false statements shall be liable to penalties in conformity with the provision of the criminal law regarding false witnesses:

1. Making false statements under the circumstances described in article 25;

2. Defying investigation by a conciliation committee without sufficient reasons, or making no response or making a false response to the inquiries of a conciliation committee prescribed in article 26.

ART. 42. Penalty cases previously provided for in this chapter, together with explanations of the facts, may be transmitted by the proper authorities and the conciliation committee or arbitration committee to the local judicial court, which, upon receipt of such cases, shall, except under special circumstances, announce its decision within 20 days.

CHAPTER 6.—*Appendix*

ART. 43. The first list of members of the arbitration committee provided for in article 16 shall be prepared by the local proper authorities within two months after the coming into effect of this act.

ART. 44. All other acts or decrees governing disputes between labor and capital heretofore issued either by central or local authorities shall be superseded by this act.

ART. 45. Whenever necessary, the provincial government or the special municipal government may draft detailed regulations governing the enforcement of this act but such draft shall be submitted to the central government for approval.

ART. 46. This act shall apply to all special districts, Mongolia, Tibet, and Kokonor.

Detailed regulations governing the enforcement of this act in the afore-mentioned districts shall be drafted by their respective highest proper authorities in the manner prescribed in the preceding article.

ART. 47. This act shall be effective on the date of its promulgation.

New Trades Dispute Act for India

A TRADE disputes bill, passed by the Indian legislature and approved by the Governor-General, which became effective May 8, 1929, contains provisions for the establishment of arbitration and conciliation machinery, and for the treatment of disputes in public utility services and illegal strikes and lockouts. The act extends to the whole of British India, and is to remain in force for five years only.

Where trade disputes exist or are apprehended, the local government, or, in the case of public utility services, the Governor-General in Council, may refer the dispute to a court of inquiry or to a board of conciliation. The authority which makes the reference appoints the members of the board or the court. A court of inquiry, which may consist of one or several persons, is to inquire into the matters submitted to it and report to the authority by which it is constituted. A board of conciliation, which may consist of one independent person, or of an independent person acting as chairman with two or four other members who may be independent or representative, in equal numbers, of the two sides, is to try to bring about a settlement of the dispute, and for this purpose may enforce attendance of any person, may require testimony on oath, and may compel the production of documents and of material objects. Any party to the dispute may be represented before either a board or a court by a legal representative. Reports of boards and courts are to be published by the appointing authority, proper care being taken to guard confidential matters.

Concerning strikes and lockouts, it is provided that any person employed in a public utility service who goes on strike must give at least 14 days' notice in writing of his intention to strike, and this notice must be given within one month prior to the strike. If the person fails to give such notice, or if, having given it, he strikes before the expiration of the 14 days, he is punishable with imprisonment up to one month, or with a fine up to 50 rupees, or with both. A similar provision is made with regard to lockouts, the penalties being one month's imprisonment or a fine of 1,000 rupees, or both. A public utility service includes any railway service declared by the Governor-General in Council to be a public utility service; postal, telegraph, or telephone services; any undertaking supplying light or water to the public; and any system of public sanitation.

The definition of an illegal strike closely follows that given in the British act of 1927. An illegal strike or lockout is one which has any other object than the furtherance of a trade dispute within the trade or industry in which the strikers or the employers locking out are concerned, and which is designed or calculated to inflict severe general and prolonged hardship upon the community, and thereby to compel the Government to take or abstain from taking any particular course of action. The penalty is imprisonment up to three months, or a fine up to 200 rupees, or both.

No one may be penalized for refusing to take part in an illegal strike or lockout, and arrangements are made for compelling their reinstatement if they have been excluded from an organization for such action, or for compensation of other kinds.

HOUSING

Report of New York State Board of Housing

THE report of the State Board of Housing of New York dated March 6, 1929, includes a review of housing conditions, prevailing rents, and available dwelling space in New York City and Buffalo, with respect to which the legislature of 1928 declared that a public emergency, justifying the continuance of the rent law, still existed. The board found that there had been a progressive improvement in housing conditions in both these cities, and that there is no longer any need for the restrictive rent laws originally passed to meet the housing stringency which followed the war, and therefore recommended that these laws should be allowed to lapse automatically on May 31, 1929. The housing problem has now reached a point where solution lies in the further promotion of the constructive policy embodied in the State housing law.

Need of Local Housing Regulation

THE YEAR'S WORK of the board included a preliminary study of housing conditions in cities and first-class villages of the State, which brought out the fact that bad housing is more widespread than is generally recognized. "Some of the worst housing conditions are commonly found in the smaller cities and even villages."

In the course of the board's investigation, inquiry frequently brought forth the response that the city had no bad housing. But in most instances inspection disclosed rear dwellings, ally dwellings, occupied dwellings so old and in such disrepair as to be unfit for human habitation, three and four story frame tenements without fire escapes, tenements with wooden hallways and stairs, yard toilets, overcrowding of families, and overcrowding of the land. Conditions in smaller communities may differ somewhat from those in large centers of population, but they are not infrequently in some respects worse.

Enactment of an adequate building and housing code is essential to overcome such conditions and to prevent their spread, and this should be reinforced by a proper zoning ordinance. At the request of a number of local authorities, a cooperative committee has been formed and is working upon a model code, so drafted that its provisions can be readily adapted to the needs of cities of different sizes. The board is also acting as adviser in the direction of local surveys, and is prepared to assist the cities of the State in the adoption of municipal ordinances with respect to housing, zoning, and planning, and in constructive efforts to provide new housing under the law.

Vacancies in New York City

BUILDING was carried on actively throughout the year in New York City, with the result that there was a steady increase in the number of vacant apartments, the number rising from 83,459 at the

beginning to 102,158 at the end of 1928, an increase of over 22 per cent.

The present vacancy figure is particularly striking when we recall that in 1921, about the time the legislature first declared the existence of a housing emergency, the total number of vacant apartments had gone down to 1,500. At that time only 0.15 per cent of all the existing apartments in new and old law tenements were untenanted. Now, 7.76 per cent of the total are vacant. In 1921 only three in every 2,000 apartments were vacant, but now 155 of them are unoccupied.

A striking fact is that the vacancies are found largely among the tenements having the lowest rentals. "More than 11,000 of the vacant apartments are offered at rentals below \$5 per room per month. Nearly 49,000, or close to one-half, of all the vacancies are below \$8 per room per month." These low rentals are found, without exception, in the old-law tenements, and are often asked for apartments absolutely unfit for habitation. Of those vacated since 1921, about 39,000 have been demolished, but nevertheless a population of more than 1,700,000 persons are still housed in old-law tenements.

Most of these are structurally inadequate and can not be altered so as to meet even the most modest of modern standards; and yet, unless the present rate of evacuation is materially accelerated, many of the old-law tenements will still be in use 30 to 50 years from now. It would appear, then, that although present conditions in New York City mark a tremendous improvement over the situation existing at the beginning of the decade, the housing problem for a large portion of the population is still serious.

Tax-Exempt Housing Enterprises

A CONSIDERABLE portion of the report is devoted to housing experiments made possible through the operation of the State law and city ordinances exempting housing which conforms to certain specifications from State and local taxation for a term of years. The importance of such experiments is found in the fact that little of the housing erected by private enterprise is within the reach of the wage-earning classes. The commission's studies have shown that in New York wage earners are almost wholly included within the class earning under \$2,500 a year, which means that normally none should pay more than \$600 a year for rent, while their average rental limit is \$500 a year; in other words, they can not afford to pay more than \$12.50 per room per month. But little housing is to be had at those rates, except in the wholly undesirable old-law tenements.

Less than 3 per cent of the total new construction in the year 1924 was offered at rents of \$12.50 per room per month or less. Ninety-seven per cent of the total construction was available only to that 30 per cent of all the families of the city whose annual income is in excess of \$2,500.

During 1928 three projects under the new housing law were approved by the board, the Farband Housing Corporation building, the Brooklyn Garden Apartments, and an extension of the Amalgamated Housing Corporation buildings. The Farband and the Amalgamated projects are cooperative, and the work done by the Amalgamated Corporation has already been described in the Review (see Review for August, 1928, p. 1; March, 1929, p. 138).

Farband Housing Corporation

THIS CORPORATION, sponsored by the Jewish National Workers' Alliance of America, has constructed two new building units, six stories high, of brick and steel construction, containing 443 rooms and 122 dining alcoves, divided into 130 apartments of three, four, and five rooms, the majority of the apartments being of four rooms and bath.

Each building is provided with push-button elevator service. The apartments are served with steam heat, electric light, and hot and cold water. Each apartment contains a bathroom, ample closet space, and modern equipment throughout. The average gross floor area per room is 264 square feet. As the site is surrounded by streets on three sides, and as the center court runs from north to south, every apartment in the buildings receives good light and ventilation.

The total land cost was \$82,500 and the building cost \$592,500. Of this total cost of \$675,000 for land and buildings, \$450,000 was obtained on a first mortgage loan from the Metropolitan Life Insurance Co. at 5 per cent per annum, and the remaining equity, in the amount of \$225,000, was subscribed by prospective tenant owners.

The buildings were completed and occupied in November. The monthly rental has been fixed at \$11 per room and \$5 per room for the dining alcoves.

In its cooperative activities, this enterprise is similar to that of the Amalgamated housing project already referred to, particular attention having been given to the cultural and social needs of the tenants. The income of the tenant owners has been estimated as ranging from \$35 to \$45 per week; allowing for seasonal unemployment in their respective trades, the annual income is approximately \$1,800. The estimated income and expenditures of the enterprise are as follows:

Annual income from rentals.....	\$65, 796
Estimated annual charges:	
Maintenance at \$40 a room.....	\$20, 000
Land and water taxes.....	3, 000
Insurance.....	2, 000
Interest and amortization.....	31, 500
	<hr/>
	56, 500
Available for dividends.....	9, 296

Brooklyn Garden Apartments

THIS PROJECT was sponsored by a citizens' committee appointed by the Brooklyn Chamber of Commerce. A plot containing 20 lots was obtained in one of the oldest tenement areas of Brooklyn, and upon it a model apartment building is being put up, to contain 677 rooms, divided into 164 apartments. Every apartment contains a bathroom and all modern conveniences, including steam heat and electric light. The rent is to be adjusted according to the desirability of the apartments, ranging from \$9 to \$11.30 per room per month, the average being \$10.50. Tenants are invited to buy stock, but the purchase is not compulsory.

The sponsors feel that to make the plan fully cooperative would require monthly payments larger than the families they hope to reach can afford to pay. If the tenants buy a small amount of stock, they will feel the responsibility of ownership. Most of the families can afford an investment of \$100 or \$200.

This project is to be completed during the present summer, and its sponsors are so well pleased with the possibilities which the plan has developed that they are already embarked upon a second plan, which

involves buying up a slum area, clearing it, and putting up modern apartments to rent at less than \$11 a room a month. The board feels that the success of these various projects has justified the State housing law.

The primary objective of the State housing law was to bring adequate housing within the economic reach of families earning less than \$2,500 per annum. That this can be done under the law is now assured.

An Experiment in Negro Housing

THE HOUSING projects described in the report of the State housing board were all built under the terms of the State housing law, so as to secure the benefit of tax remissions. In Harlem there is an interesting example of a model apartment building, provided with club rooms, nurseries, playgrounds, and similar community benefits, built without tax exemptions, which is carrying itself on a cooperative basis, and in which the tenants are working toward full ownership. This project, the Paul Laurence Dunbar Apartments, was described in the issues of the Crisis for October and November, 1928, and these articles have since been reprinted as a separate pamphlet.

The plan was undertaken as an experiment in meeting the housing difficulties of some of the negroes who migrated to New York during and after the war period. The overcrowding among the negro population, due largely to the difficulty of securing any accommodation within their means, was notorious. Even those who might have combined to build found it almost impossible to do so on account of discriminations against them on the part of financial institutions. Moreover, many of the newcomers were not used to city life, and such efforts at cooperation as were made were apt to suffer from the difficulty of excluding the careless, dishonest, or otherwise undesirable element.

The suggestion of cooperatively owned apartments which should at one and the same time provide desirable living quarters and train the occupants in the art of living together came from John D. Rockefeller, jr., who also sponsored the plan and took the responsibility of financing it. He bought an entire block and on it erected six independent buildings, so related as to make a harmonious whole, covering 49.7 per cent of the ground area. The architect made a point of beauty.

He made the buildings first of all beautiful, not gaudy and overloaded with ornamentation, but built with brick of warm color and soft texture, in well proportioned masses, with sparing use of carving and wrought iron. He left a great space in the center open for grass, trees, shrubbery, and a playground, building the dwellings but two rooms deep, and disposing them so as to make a series of wings and towers which concealed the fire escapes and gave a pleasing vista.

The buildings contain 511 apartments, ranging in size from three to seven rooms. There are also a doctor's suite, a dentist's suite, and 10 stores, all of which are rented on a commercial basis, the rent being turned back to reduce the necessary payments upon the apartments.

The rooms are small, the kitchens being about 7 by 10 feet, the dining rooms, 11 by 12, the living and bed rooms, 10 by 11, 13, or 15 feet. The ceilings are 8 feet 1 inch high, and the decorations and finishing are simple but good. There is of course electricity, hot and cold water, washtubs and gas ranges, refrigerators and dumb waiters. The buildings are five and six stories high without elevators

or roof gardens, but with wide brick entries and iron stairways and flagged landings.

The actual cost of the land and buildings, including architect's fees, insurance, and taxes during construction, with interest at 5 per cent on the money advanced, was \$3,330,000. Beyond the 5 per cent interest no charge was made for financing the project nor for the services of Mr. Rockefeller's staff in developing the whole plan. Only stockholders can be tenants and only tenants can be stockholders. A tenant must subscribe for an amount of stock representing the cost of the apartment he selects, and must make a down payment of \$50 per room. He is then given a lease for three years with the privilege of renewal yearly thereafter. The average rent is \$14.50 per room per month, of which approximately 54 per cent is applied as principal and interest on the purchase of the apartment, and 46 per cent goes for taxes, upkeep, insurance, and other charges. It is calculated that in about 22 years the tenants will have paid for the entire project, including the land, and will then have an equity in the apartments averaging for each tenant over \$6,600.

The buildings were opened in February, 1928, and in less than six months every one of the 511 apartments had been sold. There was a little hesitation at first, however, on account of the small rooms, the strict leases and the rents, which were considered high. Also, there was the matter of regulation. Those who took the apartments appeared to feel that they were submitting to a kind of self-denying ordinance, but that in so doing they were setting a new standard for Harlem living.

The great evils of living in Harlem, and, so far as that is concerned, in any poor neighborhood, with people of any race, are noise, overcrowding, crime and delinquency, dirt and ugliness. In the Dunbar Apartment, noise is regulated by playgrounds and by time limits for parties, radio, and music, limits which are sometimes irksome, but which allow people to sleep. Overcrowding is limited by the size of the rooms themselves and by rules against lodgers. Delinquency and crime are kept down by a careful sifting of applicants, by the uniformed watchmen day and night, and by peremptory dispossession for evil doers. Dirt and ugliness are attacked by various and sometimes minute regulations about bottles on window sills, shaking mops out of windows and down the dumb waiters, disposal of garbage, hanging of clothes, and other rules of that sort which seem to many people an interference with individual liberty, but which are in fact education for the necessities of a changed social existence.

The operation as well as the occupancy of the apartments is confined to the colored race, the entire staff from the manager down being negroes. The consensus of opinion is that although the experiment has been in operation but a comparatively short time it is a success. The amount of noise has been astonishingly reduced, compared with other communities of the same size, lodgers are not nearly so numerous as elsewhere, and the buildings are kept clean and beautiful. "On the whole, the people are contented and happy, and are paying their rents."

English Housing Subsidy

IN DECEMBER, 1928, an order was approved by Parliament which would alter the amount of the subsidy to be paid on all houses not completed before October 1, 1929, abolishing altogether subsidies under the Chamberlain Act of 1923, and reducing subsidies under the

Wheatley Act of 1924 by an amount varying according to whether the house concerned was located in an agricultural or an urban area. (See Labor Review, February, 1929, p. 80.) This was the second time the Government had passed such a measure, the first reduction having been made applicable to all houses not completed before October 1, 1927. (See Labor Review, March, 1927, p. 40.)

On July 15, 1929, a motion was introduced in Parliament to annul this action, so far as concerned the reduction of the Wheatley subsidy. In explaining the reasons for this motion, the Minister of Health stated that the Government is desirous of undertaking a vigorous housing campaign, involving the clearance of slum areas and the provision of houses within the worker's reach, but that in the brief interval between assuming control and the adjournment of the summer session of Parliament, it was obviously impossible to prepare detailed plans and secure the legislation necessary to carry them into effect. It was entirely possible, however, to annul the action of last December, and thereby avoid the dislocation in the building industry otherwise sure to ensue. The natural result of the anticipated cut would be a speeding up on all houses which could be completed before October, and a cutting down in plans for houses which could not be finished until later. In other words, there would be a spurt in house building, with an accompanying dislocation of prices, followed by a depression and increased unemployment. To avoid this, it was proposed to leave the subsidy at its present figure until the situation could be examined and a program prepared. At the autumn session, it was hoped, such a program could be laid before the House, and meanwhile the knowledge that the subsidy would at least not be decreased would serve to prevent confusion and keep house building going on steadily at its present pace. As for the subsidy payable under the Chamberlain Act, the Government was entirely willing it should lapse, since it has done its work, and there is general agreement that houses for sale can now be built in sufficient numbers without such aid.

The bill was debated at some length, but passed on July 22. In its comment on the debate, the Manchester Guardian furnishes the following figures concerning the number of subsidized houses completed by September 30 in each of the following years:

1924.....	36, 000	1927.....	212, 000
1925.....	92, 000	1928.....	101, 000
1926.....	131, 000		

Up to the end of September of this year, it is estimated, the number will not be over 120,000.

Construction of Workmen's Houses in Genoa

IN A communication of May 18, 1929, from H. P. Starrett, American Consul General at Genoa, Italy, an account is given of the plan of the Institute for the Construction of People's Houses in Genoa (*Instituto per le case popolari*). The institute was founded in 1907 with funds supplied by the municipality of Genoa, which still controls and supervises its management. It has a paid-in capital of 15,136,600 lire (\$792,507) and assets amounting, on December 31, 1928, to 110,000,442 lire (\$5,759,293).

The plan of the institute is to tear down the old and unhealthful houses in Genoa, of which there are still many, and replace them with houses for the middle and poorer classes. During 1928, the institute constructed 10,300 rooms in buildings of different types and had the supervision of many more rooms in buildings erected directly by the municipality. All the apartments completed during the year were sold or rented long before completion. In fact, the demand for houses was so great that at one time the institute had a waiting list of 2,500 persons.

With a view to assisting further in the solution of the housing problem the institute recently obtained a loan of 50,000,000 lire (\$2,617,850) from the Genoa savings bank in order to carry on an extensive building program that, it is expected, will be completed in a comparatively short time.

Twenty million lire of this will be used in the construction of a "garden city" to be located in the Valle del Vento at Marassi, on grounds already owned by the institute and covering an area of 60,000 square meters. (The building plan of the "garden city" was recently obtained through a competition among the Italian architects, promoted by the institute and under the auspices of the mayor of the city of Genoa.) This sum will cover the expenditure for the building of apartments of the so-called "economic type" having a total of 2,200 rooms which will be sold in small groups either for cash or on the installment plan, 25 per cent being paid down and the remainder being paid in small monthly amounts extending over a period of twenty years.

The houses to be built in the Valle del Vento, according to the present plans, will be 75 in number, not more than three stories high, with six apartments to each house. "Every house will be surrounded by a small garden and supplied with every modern convenience while at the same time it will be economical, healthy, and comfortable in every way."

Fifteen million lire of the loan will be devoted to the construction of "popular type" apartments for poor families, to be rented at nominal rates barely sufficient to cover the administration, upkeep, and amortization of interest on the loan. The remaining 15,000,000 lire will be used chiefly for the construction of apartments of the simplest type, having small rooms but conforming to the public health regulations.

In addition to the 7,200 rooms being built with the proceeds of this loan, there are under construction in different parts of the city 744 apartments with 2,820 rooms, thus making available a total of 10,000 rooms. At the same time, energetic steps are being taken by the public authorities to prevent people moving from the country to the city. When the new apartments are ready they will be allotted only to those who have been residents of the city for several years.

A better-class residential garden city will be built in the near future, located farther south, not far from the sea, towards Nervi.

COOPERATION

Cooperative Oil Associations in Kansas

THE Farmers' Union of Kansas announced in the Kansas Union Farmer (Salina) of July 4, 1929, that the Farmers' Union Jobbing Association has made a contract with the Union Oil Co. (cooperative) whereby the latter will act as buying agent for the farmers' oil companies of Kansas.

Heretofore, while the number of cooperative oil associations has increased very rapidly in Nebraska and Minnesota, the development has been much slower in Kansas.

The Farmers' Union is now beginning an active campaign to organize cooperative oil associations among the farmers in the State, believing that such associations offer a very substantial means of saving. It is stated in the July 10, 1929, issue of the Equity Union Exchange (Greenville, Ill.) that interest in the chain of cooperative oil companies which the Union Oil Co. is organizing is being manifested in North and South Dakota also, and the report states:

A great many cooperative oil companies have been organized in these two States. In South Dakota last year, the cooperative companies handled several million gallons of gasoline and kerosene. Several new companies have been organized this year, and the volume is constantly increasing. The Union Oil Co. is now assisting a number of companies in North and South Dakota in organizing. The Union Oil Co.'s national chain of cooperative oil companies is rapidly growing longer and stronger.

The oil company has recently acquired a compounding plant, which it is operating in North Kansas City, Mo.

How One Society Arouses Interest in Cooperation

THE Franklin Cooperative Creamery Association of Minneapolis, Minn., offers an interesting example of what can be done to make cooperation interesting and of popular appeal. Some of its activities in this respect are reviewed in the July, 1929, issue of Cooperation (New York).

The association is probably the largest purely consumers' cooperative society in the United States. Its shareholder members number 4,632, its sales in 1928 amounted to \$3,410,397, and its net gain in that year to \$95,521. It serves some 40,000 patrons and operates 165 milk routes and 10 ice-cream routes. It has 415 employees, all of whom are both trade-unionists and members of the association.

The association has by no means confined its attention merely to the business end of cooperation. The president of the organization stated at the Sixth Cooperative Congress, held in 1928, that emphasis

was being placed upon familiarizing the public with the work and aims of the association rather than upon extending the business.

One of the most important committees of the organization is the educational committee. Its duties, it is pointed out, have been more exacting than would ordinarily be the case, because of the very large membership of the society, since the large number has made it "difficult to instill the spirit of 'I know you, you know me, let us all work together for the cause of cooperation.'" But its efforts, it is stated, are beginning to bear fruit, and the society has found a high place in the esteem of the people of Minneapolis. The educational committee distributes cooperative literature, arranges programs and entertainments for societies, trade-unions, clubs, and lodges, and arranges for the annual picnic of the organization and the training schools for the employees, etc.

To assist in the work of informing the public generally about the Franklin Creamery, a 2-reel motion picture was made, showing in story form the work of the association and of the cooperative movement. At the time the new north plant of the association was opened the public was invited to inspect the plant, but for the benefit of those who could not see it in person the film was shown to "thousands of people at lodges and places of recreation." It has recently been brought up to date and is being shown at the local theaters.

Another medium through which the people of the city are getting acquainted with the association is the band and chorus, both recruited from the members. The former has 33 and the latter 32 members. "The chorus, besides giving a large concert each year, usually to an audience of over 2,000, is requested to appear at many community gatherings, churches, and lodges, and sings to thousands of people annually. The band, like the chorus, is kept busy continuously, especially during the summer months, in giving concerts in parks, community picnics, and many other organizations, and is usually booked for several months in advance. For the last three years the Franklin band and chorus have been honored in being requested to open the musical season in our municipal parks, usually playing to an audience of several thousand."

There is also a baseball team made up of employees of the association. This team is a member of the commercial amateur league of the city and won the amateur baseball championship of the city for the three years 1926, 1927, and 1928.

A measure of thoughtfulness which should bring results in appreciation is the action of the association in gradually replacing its horse-drawn and gasoline trucks by electric trucks. These, it is stated, are not only more sanitary and economical but "also much quieter, and people do appreciate a quiet milkman."

Every possible measure making for efficiency and sanitation is adopted by the association. Everything possible in processing and putting up the products—milk, cream, butter, ice cream, etc.—is done by up-to-date machinery, and the milk is brought in from the country in "huge glass-lined tanks, thermos bottles on the grand scale, which prevent milk from freezing in wintry weather and from getting hot in the summer sun."

Productive Center of a Large Cooperative Society

AN instance is cited in the Canadian Cooperator (Brantford, Ontario) for July, 1929, which shows how useful a cooperative society may be in supplying the wants of its members. The society described is the Royal Arsenal Cooperative Society at Woolwich, England. This society has some 150,000 members and is one of the largest retail cooperative societies in the United Kingdom.

It maintains a productive and distributive center, which includes an up-to-date dairy, a laundry, a tea blending and packing plant, a large grocery and provision warehouse on the river front where goods can be landed from boats, a shoe-repair shop, warehouses for shoes and hardware, a tailor shop, carpenter shop, coach factory, machine shop, and a smoked-meat plant.

The various departments in this center employ nearly 1,000 persons.

Development of Consumers' Cooperation in Canada

THE Canadian Cooperator (Brantford, Ontario), in its issue of July, 1929, gives detailed figures for the year 1928 for 30 cooperative societies affiliated with the Cooperative Union of Canada. During the five-year period since 1923 the number of societies reporting has risen from 7 to 30, their membership from 4,646 to 10,336, and their annual sales from \$2,249,379 to \$5,396,967. These societies, according to the report, include nearly all the largest and most successful consumers' societies in Canada, but there are still "some hundreds of societies" which have not yet affiliated with the Cooperative Union.

Groceries are the line most commonly handled by the affiliated societies, but many handle also such items as hardware, dry goods, and certain farm supplies. One society handles groceries, fruits and vegetables, lumber, coal, wood, dry goods, shoes, machinery, oil, twine, meat, hardware, insurance, bakery goods, furniture, confectionery, house furnishings, paints, and glassware.

The period of operation of the societies ranges from 1 year and 2 months to 22 years and 6 months, the average being 10 years and 6 months.

The statement below shows for the 30 local societies the essential data for 1928. Two new wholesales, those of Manitoba and Saskatchewan, have become members of the central organization, but neither has been in operation long enough to be included in the statistical presentation.

	Retail consumers' societies	United Grain Growers
Membership.....	10, 336	35, 000
Share capital.....	\$589, 571	\$3, 096, 695
Loan capital.....	\$219, 547	
Reserves.....	\$321, 273	\$2, 202, 373
Sales.....	\$5, 396, 967	¹ \$2, 751, 000
Net profit.....	\$342, 750	\$714, 831
Patronage dividends.....	\$252, 976	
Number of employees.....	323	700

¹ Distributive departments only.

Of the societies reporting, not one reported a loss on the year's trading. If calculated on the basis of share capital (instead of on sales, as is the cooperative practice) the net profit of \$342,750 on the 1928 business would represent gains of 58 per cent. In this connection the report of the united board of the Cooperative Union remarks:

Compared in terms of ratio of net return on share capital investment, the statistics quoted in recent years of cooperative societies which are members of the union are so remarkable that they have attracted the attention of the private trade. Viewed in terms of average dividends on purchases, the same are not as satisfactory as could be desired. A general improvement in the purchase dividends paid by the societies would immediately be reflected in greatly increased sales and lower operating costs. Two factors will largely govern such an achievement; one is the expansion of the operations of our societies to more remunerative lines of merchandise and services, and the other, and probably the more important, is the development of wholesale distribution. In the latter respect considerable progress was made in the year under review. The same culminated in the incorporation of the Alberta Cooperative Wholesale Association (Ltd.), and the Saskatchewan Cooperative Wholesale Society (Ltd.), both of which commenced business on January 1 last; the Manitoba Cooperative Wholesale (Ltd.), having been organized in the previous year. In the current year the incorporation of an Ontario Cooperative Wholesale Society (Ltd.), was authorized by a cooperative conference in northern Ontario.

Cooperative Movement in China

THE June, 1929, issue of the Review of International Cooperation contains an article, by a European representative of the Chinese Cooperative Union, on the development of the movement in that country.

According to this article, the cooperative idea is "nearly as old as Chinese history itself." The system of land tenure in ancient China was based on the principle of mutual aid and public assistance. The modern credit society was foreshadowed by the system of the "Hui," whereby a group of friends contributed equal amounts of money for the benefit of a needy person of their number, the sum being repaid in equal installments at fixed periods and at an agreed rate of interest.

The cooperative movement as it is found in modern China, however, is entirely of western origin and was introduced into the country by Chinese who had been educated in Occidental countries. One of the most prominent of these in 1919 founded the Ping Ming Institute at Shanghai with the support of the faculty and students of the university where he was teaching. Under the auspices of this institute a weekly paper was launched devoted to the spread of the cooperative idea. About this time a cooperative savings bank was started in the same city. General interest began to be aroused by these two cooperative enterprises.

Three years later a cooperative store was opened, and about six months after that the employees of one of the largest publishing companies in the Far East formed a cooperative society.

Outside of Shanghai there were societies in Peking, Changsha (Hunan Province), Wuchang (Hupeh Province), Chekiang, Szechuan, and Kwangtung. These included three stores, one bookstore, and one credit society.

In 1923 the China International Famine Relief Commission introduced a system of rural credit based upon the Raiffeisen plan and this was very successful.

The National Government of China, formally established in Nanking in 1927, adopted the principle of cooperation as part of its policy of economic reconstruction. Under this policy, "every facility is to be given by the National Government to cooperative enterprises in China. Laws favorable to the development of the cooperative societies are being drafted; special schools for the training of cooperative experts are being established." As part of the plan the writer of the article under review has been sent to Europe to study the features of the cooperative movement in the various countries.

The Ping Ming Institute has become an organization of national importance and has been renamed the Chinese Cooperative Union. Its headquarters are at Shanghai, but it has branch offices in every important town in China. It publishes a number of periodicals, one of which (a weekly) has a circulation of more than 50,000 copies, and another (a monthly), a circulation of 8,000.

Kiangsu Province has eight bureaus established by the provincial government, to carry on educational work in cooperation. In Shanghai, one of the bureaus of the city government has opened a school of cooperation, the Chinese Cooperative Union supplying the teachers, while the students are mainly factory workers.

In Shanghai, consumers' cooperation has gained a considerable foothold, while in the Province of Chekiang, rural cooperative banks have attained an important development. In several other Provinces the movement is steadily gaining ground.

No statistics of the movement in general are available, but data are now being collected by the cooperative union.

Cooperative Measures for Protection of Maternity and Infancy in Russia

THE consumers' cooperative movement in Russia is devoting an increasing amount of attention to assisting women and children and to instructing mothers in child care.

According to the April, 1929, issue of the Information Bulletin of Centrosoyus (Moscow), the movement has set up a fund for the purpose, the money being raised by deduction from the net profit and a certain percentage of the sales. The fund is used to establish nurseries, kindergartens, and playgrounds, and to provide medical advice to mothers and children. The fund has been in existence for some years.

In 1928, on the tenth anniversary of the first congress of peasant and working women, the Central Cooperative Union, Centrosoyus, established a traveling health consultation agency. This organization consists of a physician, a trained nurse, a technical assistant, and a cooperative instructor.

The little group moves from village to village, stopping for about three months in each. At each place the children and their mothers are given a medical examination, and the physician gives illustrated lectures on the hygiene and care of the children. Each mother is given written instructions as to what measures she is to take. While this is going on, the cooperative instructor is giving talks on the cooperative movement and its advantages.

Before leaving the village the health center starts a permanent organization to continue its work.

INDUSTRIAL DISPUTES

Strikes and Lockouts in the United States in July, 1929

DATA regarding industrial disputes in the United States for July, 1929, with comparable data for preceding months are presented below. Disputes involving fewer than six workers and lasting less than one day have been omitted.

Table 1 is a summary table showing for each of the months—January, 1927, to July, 1929, inclusive—the number of disputes which began in those months, the number in effect at the end of each month, and the number of workers involved. It also shows, in the last column, the economic loss (in man-days) involved. The number of workdays lost is computed by multiplying the number of workers affected in each dispute by the length of the dispute measured in working-days as normally worked by the industry or trade in question.

The general coal strikes beginning July 1, 1927, and April 1, 1927, have been closed as of July 8, 1929, and therefore data for these strikes are omitted from the July figures shown in Table 1. While it is known that in many instances strike benefits are still being paid, it is felt that for statistical purposes this strike is practically terminated since many mines are closed indefinitely.

TABLE 1.—INDUSTRIAL DISPUTES BEGINNING IN AND IN EFFECT AT END OF EACH MONTH, JANUARY, 1927, TO JULY, 1929

Month and year	Number of disputes		Number of workers involved in disputes		Number of man-days lost during month
	Beginning in month	In effect at end of month	Beginning in month	In effect at end of month	
1927					
January.....	37	18	5,915	2,287	58,125
February.....	65	45	9,756	5,717	115,229
March.....	74	67	13,142	8,182	214,283
April.....	87	88	202,406	199,701	5,265,420
May.....	107	116	22,245	200,702	5,136,006
June.....	80	88	18,957	196,323	4,863,345
July.....	65	63	33,994	199,287	5,308,123
August.....	57	53	8,150	198,444	4,999,751
September.....	57	58	12,282	196,829	4,945,702
October.....	50	58	13,024	82,095	2,724,117
November.....	27	51	5,282	82,607	2,040,140
December.....	28	54	4,281	81,229	2,129,153
1928					
January.....	48	63	18,850	81,880	2,128,028
February.....	52	58	33,441	103,496	2,145,342
March.....	41	47	7,459	76,069	2,291,337
April.....	71	48	143,700	129,708	4,806,232
May.....	80	56	15,640	133,546	3,455,499
June.....	44	46	31,381	143,137	3,670,878
July.....	54	42	18,012	132,187	3,337,386
August.....	59	42	8,887	105,760	3,553,750
September.....	52	34	8,897	62,862	2,571,982
October.....	61	42	27,866	41,474	1,304,913
November.....	44	38	37,840	38,745	1,300,362
December.....	23	29	5,172	35,842	991,238
1929					
January.....	45	34	14,727	39,484	949,692
February.....	48	34	20,134	40,385	921,583
March.....	77	42	14,052	41,321	1,094,161
April.....	103	52	30,130	52,292	1,429,046
May.....	98	73	26,220	58,959	1,578,929
June ¹	66	72	19,828	54,668	1,538,998
July ¹	67	87	42,623	30,626	1,334,160

¹ Preliminary figures subject to change.

Occurrence of Industrial Disputes, by Industries

TABLE 2 gives by industry the number of strikes beginning in May, June, and July, 1929, and the number of workers directly involved.

TABLE 2.—INDUSTRIAL DISPUTES BEGINNING IN MAY, JUNE, AND JULY, 1929

Industry	Number of disputes beginning in—			Number of workers involved in disputes beginning in—		
	May	June	July	May	June	July
Auto, carriage, and wagon workers.....	1	1	4	11	75	1, 109
Bakers.....	2		2	430		195
Barbers.....	1	1		41	300	
Building trades.....	44	23	12	15, 506	5, 999	2, 390
Chauffeurs and teamsters.....	9	3	7	2, 464	67	1, 014
Clothing.....	7	11	15	1, 170	5, 927	24, 420
Food workers.....			1			8
Furniture.....	1		2	125		117
Hotels and restaurants.....	1	1		130	62	
Laundry workers.....	1			162		
Leather.....		1	2		25	1, 040
Light, heat, and power.....	2			56		
Longshoremen.....	1		1	8		100
Lumber and timber.....	1			40		
Metal trades.....	2	4	2	41	240	29
Miners.....	5	7	2	2, 285	5, 795	7, 050
Motion-picture operators, actors, etc.....		3	1		48	100
Printing and publishing.....	1		1	150		2, 000
Railway workers.....		2			321	
Stationary engineers and firemen.....			1			100
Steamboatmen.....	1			232		
Stone.....	1			100		
Street-railway workers.....		1	1		228	1, 500
Municipal employees.....			1			21
Textiles.....	11	7	10	2, 336	391	1, 180
Tobacco.....	1	1		100	350	
Other occupations.....	5		2	833		340
Total.....	98	66	67	26, 220	19, 828	42, 623

Size and Duration of Industrial Disputes, by Industries

TABLE 3 gives the number of industrial disputes beginning in July, 1929, classified by number of workers and by industries:

TABLE 3.—NUMBER OF INDUSTRIAL DISPUTES BEGINNING IN JULY, 1929, CLASSIFIED BY NUMBER OF WORKERS AND BY INDUSTRIES

Industry	Number of disputes beginning in June, 1929, involving—					
	6 and under 20 workers	20 and under 100 workers	100 and under 500 workers	500 and under 1,000 workers	1,000 and under 5,000	Over 5,000
Auto, carriage, and wagon workers.....	1	1	1	1		
Bakers.....		2				
Building trades.....	3	5	3		1	
Chauffeurs and teamsters.....	3	2	1	1		
Clothing.....	2	5	4		2	2
Food workers.....	1					
Furniture.....	1		1			
Leather.....		1			1	
Longshoremen.....			1			
Metal trades.....	2					
Miners.....		1				1
Motion-picture operators, actors, etc.....			1			
Printing and publishing.....					1	
Stationary engineers and firemen.....			1			
Street-railway workers.....					1	
Municipal employees.....		1				
Textiles.....	2	5	2	1		
Other occupations.....		1	1			
Total.....	15	24	16	3	6	3

In Table 4 are shown the number of industrial disputes ending in July, 1929, by industries and classified duration:

TABLE 4.—NUMBER OF INDUSTRIAL DISPUTES ENDING IN JULY, 1929, BY INDUSTRIES AND BY CLASSIFIED DURATION

Industry	Classified duration of strikes, ending in July						
	One half month or less	Over one half and less than 1 month	1 month and less than 2 months	2 months and less than 3 months	3 months and less than 4 months	24 months and less than 25 months	27 months and less than 28 months
Auto, carriage, and wagon workers.....	4						
Bakers.....	2						
Building trades.....	6		4	2			
Chauffeurs and teamsters.....	3		1	1			
Clothing.....	3	1	2				
Food workers.....	1						
Hotels and restaurants.....					1		
Leather.....	2						
Longshoremen.....	1						
Metal trades.....	1	2		1			
Miners.....		1				1	1
Railway workers.....	1						
Municipal employees.....	1						
Textiles.....	5	1	1	1			
Other occupations.....				1			
Total.....	30	5	8	6	1	1	1

Principal Strikes and Lockouts Beginning in July, 1929

Anthracite coal miners, Pennsylvania.—Ten collieries of the Lehigh Coal & Navigation Co. in the Panther Creek Valley were involved in a strike of approximately 7,000 workers from July 1, to July 26. Because of slackness in the market the company worked the various collieries alternately in order to give work to all. The men demanded that work be alternated semimonthly instead of monthly. It was decided to refer the matter to district officers for settlement, the men returning to work meanwhile.

Clothing workers, New York.—On July 2 at 10 a. m. the union cloak makers in New York City began a strike to improve conditions in the industry and to enforce certain demands which they sought to have embodied in a proposed new agreement with the manufacturers. The former agreement expired June 1, but negotiations had continued after that date.

The strike was called by the International Ladies' Garment Workers' Union against the inside manufacturers, members of the Industrial Council of Cloak, Suit, and Skirt Manufacturers (Inc.), the so-called stylists of the industry, and against the contractors, members of the American Cloak and Suit Manufacturers' Association (Inc.). A third group, the jobbers, members of the Merchants Ladies' Garment Association (Inc.), was also involved. The jobbers furnish the material and arrange with the contractors, who employ the workers to manufacture the garments.

The industry gives employment to some 28,000 or 30,000 workers of both sexes, but at the time the strike began, according to press reports, only about 15,000 persons were actually employed.

The union demands included a \$5 wage increase, reestablishment of the unemployment insurance fund, a 40-hour week, and modifica-

tion of reorganization rights affecting discharge. The main purpose of the union in calling a strike, however, was to strengthen its control of the industry and to do away with the alleged sweatshop. Much of the work has gotten into the hands of independent or nonunion shops, over which the union seeks to extend or regain control, and the strike was also directed against those shops, which employ both union and nonunion workers.

A virtual settlement of the major differences was reached on July 11 between representatives of the union and of the Industrial Council, the recognized leader of the employers' groups, the other two associations accepting similar settlements.

The employers' demands respecting piecework and a 42-hour week were dropped. The employers also agreed to a substantial modification of the reorganization or discharge clause, whereby the discharging of shop chairmen or other union workers will be subject to review by the impartial chairman. The union withdrew its demand for a \$5 increase in the minimum scale, but the agreement provides that one year from the date thereof the union may apply to the impartial chairman to consider a modification of the wage schedules therein agreed to. Agreement was reached to organize a joint control commission to supervise the maintenance of standards and agreements and to discourage the manufacture of garments in non-union shops.

This commission is composed of the impartial chairman in the industry and of an equal number of representatives of the contracting parties and of all other organizations that are subject to the machinery established by the agreement and three prominent citizens of the city of New York not connected with the industry, appointed by the Governor of the State of New York.

The commission is to be maintained by annual contributions from parties to the agreement, which runs for three years, ending June 1, 1932.

After receiving the approval of the shop chairmen and of the union membership in a referendum vote on July 15, the agreements were formally signed at the city hall in the presence of the lieutenant governor and the mayor on July 16, on which date the workers began to return to their places of employment.

While the strike in the main is over, announcement is made by the union that the fight against the independent shops will be continued for the purpose of bringing them under union control. These shops, it is said, employ from 9,000 to 11,000 workers.

The chain store has become an important factor in the industry and according to a spokesman for the union this "is the largest single factor in perpetuating the sweatshop because it has almost all of its production made in factories violating almost all labor standards." The "chains," he maintained, controlled 30 to 40 per cent of the trade.

The good offices of the governor were effectively employed in bringing about a peaceful settlement of the strike.

Further details of the agreement will be found elsewhere in the Review in an article entitled "Situation in the women's garment trades."

Street-car workers, Louisiana.—Approximately 1,500 carmen (motormen, conductors, pitmen, and helpers) of the Amalgamated Association of Street and Electric Railway Employees of America, members of the carmen's local union in New Orleans, began a strike on July 1 against the New Orleans Public Service (Inc.) for "wage increase and signed union agreement." As published in the press, the call for the strike, issued Monday night, July 1, read as follows:

BROTHERS: Your officers and committee having failed to secure a satisfactory understanding with the New Orleans Public Service (Inc.), concerning our new agreement, regarding adjustments and suspensions and dismissals through arbitration:

We are compelled in accordance with your directions and instructions to issue this order of suspension of work, to become effective at once, this first day of July, 1929, at 10 o'clock p. m.

The company has declined to accept any fair proposition of settlement and has failed to offer any proposition that would grant to you a fair hearing in suspensions and dismissals, and has refused arbitration of any kind on the subject.

Therefore, all members of Division 194 are hereby notified that a suspension of work on all lines of the New Orleans Public Service (Inc.), due to their unfairness, is hereby ordered, effective at once, and all cars are hereby ordered to be left in the barns, upon the completion of their schedule runs of this date, July 1, 1929.

The cause of this suspension of work rests entirely on the shoulders of the directors and officials of the New Orleans Public Service (Inc.).

It has refused arbitration and even gone so far as to eliminate a large portion of our membership in the proposition of agreement, namely the meter readers, testers, and all the employees of the gas department, and way and structures department have been excluded. All these members have been covered in all of our agreements since 1918. They also propose to keep intact the Progressive Benevolent and Social Club, the dual organization that it has permitted and fostered.

They wish to destroy your union, Division 194. Stand firm and resist to the bitter end the efforts of this company.

Labor in general and the fair-minded people of New Orleans and vicinity will reject this company's attitude in its refusal and unfairness to adjust this matter by means of that great American principle, arbitration, thereby avoiding this condition of inconvenience and hardship to the public in general which has been forced upon us by the company through its unfair suspensions and dismissals of our members in the last three years.

This order of suspension of work is to apply to all members of Division 194, employed in all departments of the New Orleans Public Service (Inc.), who have been covered heretofore by our agreements.

We urge all members to conduct themselves properly and in accordance with the laws of our organization, and avoid any circumstances that would lead you into trouble.

Fraternally submitted, by order

EDWIN PEYROUX, *President.*

GUS BIENVENUE, *Secretary.*

ED VEILLON, *Vice president.*

J. B. LAWSON, *Member General Executive Board.*

In a letter to the union dated July 3, the company stated it was still willing to enter into the closed-shop contract which it offered, provided it be accepted and the men return to work not later than 6 o'clock p. m., July 4; otherwise the company would proceed to operate the cars. The text of the letter follows:

GENTLEMEN: The board of directors of New Orleans Public Service (Inc.), met this morning to consider the present strike of the street railway employees, and fully review the entire situation.

That situation is this: The company has at no time refused to recognize your union. On the contrary, the contract tendered by the company contained the fullest recognition of the union.

The company tendered a virtual renewal of the old contract on a closed-shop basis, which means that we agreed that no street railway employee could remain

in our employ unless he become a member of your union within 60 days and remained a member by paying or offering to pay his dues to the union. There is accordingly no just basis for the statement of your officials that the contract we offered did not give recognition to the union.

What your officials demanded was not only a closed shop, but the right to require the suspension or dismissal of our employees even though they became members of your association and paid or tendered payment of their dues, no matter how efficient and valuable such employees might be. Your officials also demanded the right to require arbitration by us of every discharge or discipline of an employee which your officers saw fit to arbitrate.

To these demands we are not willing under any circumstances to accede. To do so means virtually abdication on our part of the right to run our own property.

We would prefer to operate our property on an open-shop basis, as is done in most of the few cities of the United States where the Amalgamated still has contracts, that is, employ whom we please, neither discriminating against union employees on one hand nor being limited to their selection on the other. Nevertheless we are still willing to enter into the closed-shop contract which we offered to your officials, provided it be accepted and that you return to work not later than Thursday, the 4th inst., at 6 o'clock p. m.

Realizing the importance of transportation to the public, we propose to operate cars by Friday morning. We are still willing to give your members an opportunity to return. If you do not return and if the contract is not accepted by your officials by the time named, we shall be compelled to operate the cars without you.

We make this offer to you in the utmost good faith, but we hereby absolutely declare to you and to the public that if it is not accepted and if our employees do not return to work within the time named, all further negotiations relative to this contract will be terminated; and we shall proceed to operate our property upon such basis as we deem best in the interest of the company and of the public.

Since this matter is of public concern, we are giving copies of this letter to the press and publishing it.

Yours truly,

N. O. PUBLIC SERVICE (INC.)
By A. W. PATERSON.

The commission council of the city of New Orleans urged the the reopening of negotiations in the following letter, addressed to the respective parties:

GENTLEMEN: The commission council of the city of New Orleans has met for the second time to-day to consider the serious problem resulting to the city from the cessation of street-car operation.

At the present time we are advised that both parties to this controversy have expressed a willingness to reopen negotiations on the matter of a contract. This, we believe, should be done. If such is possible, and we believe it to be so, it is our judgment that arrangements should be made between the company and the union, for the renewal of the operation of street cars, for the benefit of the public at large, and to afford ample opportunity to give careful consideration to all details of the proposed contract which, it is our hope, will be worked out satisfactorily to both parties.

Public interests require the renewal of the operation of street cars pending the negotiations which you both have evidenced a willingness to resume in an effort to reach a satisfactory basis for your new contract.

Very truly yours,

COMMISSION COUNCIL, CITY OF NEW ORLEANS,
ARTHUR J. O'KEEFE, *Mayor*.

The attempt of the company to operate the cars with outside operators on July 5 was attended by considerable disorder and rioting, resulting in a number of persons being injured, and at least one fatally. No street cars were operated on July 6 because of an order from the city council.

Following the alleged burning of "four more" street cars early on the morning of July 6, steps were taken to stop the violence that had characterized the strike. On application of the New York

Trust Co., trustee, and others, Federal Judge Borah on July 9 granted a preliminary injunction against the union street-car men, restraining them from rioting, from damaging the company's property, and from interfering with the operation of the street cars.

On July 9 the union made known to the company through the city commission its willingness to send the men back to work if the company would immediately recognize the union and arrange for negotiations for a new working contract. The union abandoned its demand for the arbitration of all discipline and dismissals of the men and agreed to allow the company full protection of its rights in the operation of street cars. The company rejected the offer of the union in the following letter:

In view of what has happened since our offer was rejected, and the utter disregard of the property rights of this company, we can no longer bind ourselves for the future to any contract with this union and subject ourselves and the community to a repetition of the present lawlessness and strikes and threatened strikes during the life and at the termination of each contract.

All the board of directors is willing to say is that if its former employees decide to go back to work, the company shall be glad to take them all back as individuals, whether they wish to be members of the union or not.

At a meeting of the building-trades council Tuesday night, July 9, a resolution favoring a general strike "as soon as conditions permit" was adopted, but no general strike was called.

On July 9, at a joint meeting of the commission council with representatives from exchanges, commercial organizations, professions, churches, and the press, a citizens' good-will committee of seven members was appointed to tender its good offices to the Public Service Co. and the union with a view to composing the differences between the two parties. This committee was accorded friendly recognition by both sides and at once became active in its efforts, though unsuccessfully, to bring about a settlement of the strike, which also received attention from the Federal Department of Labor through two of its conciliators.

The operation of some cars in an experimental way during daytime was resumed on July 15 with nonunion men under the protection of the Federal injunction and of police and United States deputy marshals.

The carmen announced their willingness to accept arbitration with Secretary of Labor Davis as arbitrator, and the Secretary indicated that he would serve provided the company joined in the request. The president of the union, W. D. Mahon, stated that he had written a letter to Secretary Davis in which he said:

We are asking for the restoration of our contract that has been in existence with the New Orleans Street Railway Co. for over 25 years on its original basis; with provisions for permanent arbitration in case of any dispute that can not be mutually adjusted and for an increase in wages. We are willing to leave the settlement of the entire dispute to you personally, as sole arbitrator, and abide by your decision.

An open-air mass meeting on July 18, called to consider a general sympathetic strike, was turned into an apparent demand for municipal operation of the street cars. The chairman of the Louisiana Public Service Commission said:

While I do not believe in municipal ownership as a general principle, I believe that if the New Orleans Public Service Co. will not agree to arbitrate with the union the city commission council should take over and operate the street cars.

On July 20, the city commission council called for a meeting on July 22 of officers of both organizations with the council to discuss their relative positions, with a view to reaching a settlement as speedily as possible, but no tangible results were made known until July 30, when it was announced by the commission council that the striking carmen and the company had agreed to submit their differences to mediation.

Night operation of the street cars was inaugurated on July 29 on three lines, and on August 2 the company announced the resumption of schedules to midnight on 21 lines.

The plan to settle the strike through mediation, however, has met with delay, because of the proposal by the union on August 4 that a second mediator, Judge William H. Byrnes, jr., of the civil district court, serve with Federal Judge Rufus E. Foster, who had been selected as mediator.

According to press reports a proposed agreement, in writing, subject to ratification by the strikers, was reached in New York City on September 5, following conferences of President Green of the American Federation of Labor with representatives of both sides and Father John O'Grady, of Washington, D. C., who is credited with taking the initiative in bringing about the meetings which have resulted in this tentative agreement.

Leather-goods workers, New York City.—The Morris White Co., manufacturers of ladies' handbags, was affected by a strike of approximately 1,000 employees from July 1 to July 6. The workers wanted better wages and working conditions. A general wage increase of 5 per cent was allowed, and also pay for three holidays without working and time-and-a-half pay for seven other holidays.

Textile workers (cotton), North Carolina.—Demanding shorter hours at the same pay and the reinstatement of discharged workers, 500 employees of the Marion Manufacturing Co., Marion, N. C., began a strike on July 11, which is still unsettled. The employees, or most of them, are said to be members of the United Textile Workers of America.

Automobile workers, Michigan.—The Murray Corporation of America, auto-body builders at Detroit, was affected by a strike or stoppage of 900 trimmers from July 17 to July 25. This trouble was caused, it is reported, by "communist agitation from the outside" and "men came back of own accord."

Truck drivers, Pennsylvania.—Approximately 800 truck drivers, members of Teamsters, Chauffeurs, Stablemen and Helpers Union No. 470 in Philadelphia, conducted a partially successful strike against 10 employing companies. The strike began July 30 and ended the next day. Some of the men, according to press reports, are drivers of freight trucks in Philadelphia, others are drivers between Philadelphia and New York. City drivers demanded that they be paid the same wages as the drivers of trucks operating in intercity traffic. The drivers inside the city limits receive \$30 to \$35 a week, while those driving to New York receive from \$45 to \$60 a week. It was agreed that all city drivers shall get \$35 per week, and that intercity drivers receiving less than \$60 per week shall receive a \$5 increase.

Gravediggers, New York.—A strike of approximately 300 gravediggers and other employees of the Calvary Cemetery Corporation, involving all three sections of the cemetery in the Laurel Hill and

Blissville sections of Woodside and Long Island City, began on July 30. It appears from press reports that the workers demand the reinstatement of a discharged employee, also an increase in pay from \$5 to \$7 per day, and double pay for work on Sundays and holidays.

Although relatively unimportant as regards the number of workers involved, this strike has attracted a good deal of notice because burials in the cemetery have been held up, giving rise to embarrassments which are obvious.

Building-trades workers, Pennsylvania.—A successful strike of approximately 1,500 building-trades workers employed by the United Engineers & Construction Co. in Philadelphia against an alleged wage reduction of certain tradesmen and the employment of nonunion workmen began on July 31 and ended on August 6.

Principal Strikes and Lockouts Continuing Into July, 1929

Restaurant and cafeteria workers, New York City.—The strike which began on April 4 was over by July 17, according to press reports, but the terms of settlement are as yet unknown.

Bronze workers, New York.—The strike which began on or about May 16 is understood to have ended after running for over two months and meeting with a degree of success in some of the shops.

Shoe workers, Massachusetts.—The strike in Boston and Chelsea which began April 8 is still in progress. The strike at Haverhill which began June 1 ended on August 19. Under the plans of the settlement, which, according to press reports, was suggested by Mr. Alfred L. Bernheim, of the Labor Bureau, (Inc.), of New York, the wages and hours of labor in effect when the former agreement expired are to continue for three years with the privilege of extending it to December 31, 1934, if both groups agree.

District Council No. 1 of the union approved a contract providing a salary of \$7,500 a year for Prof. Norman Ware, of the department of economics at Wesleyan University, as temporary manager of the union. The manufacturers had stipulated that the workers must reorganize and appoint a responsible person as manager before they would be recognized.

Conciliation Work of the Department of Labor in July, 1929

By HUGH L. KERWIN, DIRECTOR OF CONCILIATION

THE Secretary of Labor, through the Conciliation Service, exercised his good offices in connection with 49 labor disputes during July, 1929. These disputes affected a known total of 73,967 employees. The table following shows the name and location of the establishment or industry in which the dispute occurred, the nature of the dispute (whether strike or lockout or controversy not having reached the strike or lockout stage), the craft or trade concerned, the cause of the dispute, its present status, the terms of settlement, the date of beginning and ending, and the number of workers directly and indirectly involved.

On August 1, 1929, there were 62 strikes before the department for settlement and in addition 16 controversies which had not reached the strike stage. The total number of cases pending was 78.

LABOR DISPUTES REPORTED DURING THE MONTH OF JULY, 1929

Company or industry and location	Nature of controversy	Craftsmen concerned	Cause of dispute	Present status and terms of settlement	Duration		Workers involved	
					Beginning	Ending	Directly	Indirectly
Columbia Malleable Iron Co., Columbus, Pa.	Lockout.....	Ironworkers.....	Asked wage increase.....	Pending.....	1929 June 26	1929 July 25	31	65
Electricians, Columbus, Ohio.....	Controversy.....	Electricians.....	Discharge of union electrician	Adjusted. All union employees; may reinstate electrician.	July 1	July 11	1	---
Bricklayers, New Castle, Pa.....	Strike.....	Bricklayers.....	Asked \$1.62½ per hour; \$13 per day.	Adjusted. Allowed as asked.....	do.....	July 5	75	25
Sound picture studios, Los Angeles, Calif.	Threatened strike.....	Actors.....	Dispute relative to contract.	Pending.....	July 2	---	---	---
Standard Oil of Indiana, Chicago, Ill.	Controversy.....	Drivers, etc.....	Working conditions.....	Adjusted. Allowed 2 weeks' vacation to drivers; other conditions unchanged.	June 17	June 21	2,000	10,000
Lehigh & Wilkes-Barre Coal Co., Audenreid, Pa.	Strike.....	Miners.....	do.....	Adjusted. Returned; negotiations to continue.	June 26	July 2	900	10
Plumbers, Poughkeepsie, N. Y.	do.....	Plumbers.....	Asked 5-day week with same pay as 5½-day week.	Pending.....	May 1	---	90	---
Miners, Panther Creek, Pa.....	do.....	Miners.....	Dispute relative to foot tender.	Adjusted. Returned; district officers to fix terms.	July 1	July 19	6,000	100
Aetna Sprinkler Co. (Inc.), New York City.	Controversy.....	Steam fitters and building mechanics.	Working conditions.....	Adjusted. Satisfactory agreement concluded.	June 26	July 8	4	45
General Petroleum Co., Seattle, Wash.	do.....	Boiler makers.....	Asked union wages, \$8.50 per day, and union working conditions.	Adjusted. Union wages allowed.....	June 1	July 16	12	150
Do.....	do.....	Sign painters and plumbers.	Asked union working conditions.	do.....	do.....	do.....	20	---
Do.....	do.....	Teamsters on trucks.	do.....	do.....	do.....	do.....	27	150
General Petroleum Co., Portland, Oreg.	do.....	Boiler makers.....	do.....	do.....	do.....	do.....	30	125
F. E. Geisler Co., Pittsburgh, Pa.	Strike.....	Steam fitters.....	Discharge of 2 union steam fitters.	Adjusted. Men reinstated; union agreement concluded.	June 26	July 13	14	---
Wood Hydraulic Hoist Co., Detroit, Mich.	do.....	Metal workers.....	Wages cut 10 to 15 per cent.	Pending.....	July 1	---	107	25
Press telegraphers, United States.....	Threatened strike.....	Telegraphers.....	Wage dispute.....	Adjusted. Junior operators increased \$2 per week; senior operators, \$2.50 to \$5.	do.....	July 4	425	3,000
Cambria Silk Hosiery Co., Philadelphia, Pa.	Lockout.....	Hosiery workers.....	Discharged all employees who refused to sign individual contracts.	Pending.....	June 26	---	150	93
Street-car workers, New Orleans, La.	Strike.....	Street-car workers.....	Wages and working conditions.	do.....	July 1	---	1,551	---

LABOR DISPUTES REPORTED DURING THE MONTH OF JULY, 1929—Continued

Company or industry and location	Nature of controversy	Craftsmen concerned	Cause of dispute	Present status and terms of settlement	Duration		Workers involved	
					Begin- ning	End- ing	Di- rectly	Indi- rectly
McKees Rocks Taxicab Co., McKees Rocks, Pa.	Strike.	Drivers.	Wages and amount of gas used.	Adjusted. Wage scale accepted; some increases allowed.	1929 July 5	1929 July 13	10	---
Wolf & Dessauer, Fort Wayne, Ind.	do.	Painters and decorators.	Nonunion labor employed.	Adjusted. Union labor employed.	June 10	July 10	4	140
Do.	do.	Carpenters and joiners.	do.	do.	do.	do.	4	250
Hunt's Point Fur Dressing Co., Long Island, N. Y.	do.	Fur workers.	Asked wage increase.	Adjusted. Allowed 45 cents to 50 cents per hour increase.	May 14	July 8	30	---
Cloak makers, New York City	do.	Cloak makers.	Wages, hours, and working conditions.	Adjusted. Compromise settlement accepted.	July 2	July 11	28,000	---
Silk workers, Allentown, Pa.	do.	Silk workers.	Asked reinstatement of weaver.	Adjusted. Returned; weaver not reinstated.	July 10	July 22	42	---
Motor shops, Harrisburg, Ill.	do.	Motor workers.	Asked 90 cents per hour and union recognition.	Pending.	May 21	---	9	40
Bakery shops, The Bronx, N. Y.	do.	Bakers.	Dispute between rival unions.	Unclassified. Agreement signed.	July 3	July 12	20	---
Electrical workers, St. Louis, Mo.	Threatened strike.	Electrical workers.	Asked \$14 per day.	Adjusted. Allowed \$13.20 per day for 2 years.	July 8	July 15	875	---
Garage mechanics, Benton, Ill.	Strike.	Mechanics.	Wage dispute.	Adjusted. Allowed 90 cents per hour—20 cents increase.	July 2	do.	8	12
Diebert, Bancroft & Ross Foundry, New Orleans, La.	do.	Molders.	Asked 10 per cent increase in wages.	Pending.	July 15	---	50	250
Community Traction Co., Toledo, Ohio.	Controversy.	Street-car workers.	Wages and working conditions.	Adjusted. Allowed 8-hour day; 2 cents per hour increase.	July 10	July 18	500	100
Virginia Engineering Co., Washington, D. C., and Rust Engineering Co., Pittsburgh, Pa.	Strike.	Building trades mechanics.	Nonunion labor employed.	Pending.	June 19	---	80	---
M. Marsh & Son (Inc.), Wheeling, W. Va.	Threatened strike.	Cigar makers and strippers.	Asked \$2 per 1,000 for makers and 1 cent per pound for strippers.	Adjusted. Improved conditions permitting increased earnings.	July 15	July 17	600	---
Building trades, Rock Island and Moline, Ill., and Davenport, Iowa.	Controversy.	Carpenters and ironworkers.	Jurisdiction of certain labor.	Adjusted. Carpenters received award.	July 16	July 20	890	610
Electro-Alloys Co., Elyria, Ohio.	Strike.	Molders.	Company proposed open shop and 9-hour day.	Pending. (Mediation refused).	July 1	---	20	50
Lake Shore Construction Co., Mentor, Ohio.	do.	Building trades.	Nonunion labor employed by subcontractors.	Adjusted. Nonunion contractor withdrew from job.	July 11	July 21	50	---
Progressive Tailoring Co., Philadelphia, Pa.	do.	Garment workers.	Asked 10 per cent increase; hours, etc.	Adjusted. Union agreement for 1 year; 5 per cent increase.	July 16	July 23	400	50

Stationary engineers, Davenport, Iowa.	Threatened strike.	Engineers.	Asked wage increase.	Adjusted. Allowed 2½ cents increase Oct. 1, 1929; 2½ cents additional Jan. 1, 1930.	July 15	July 24	24	3,000
High-school building, Allentown, Pa.	Strike.	All building crafts.	Nonunion ironworkers employed.	Pending.	July 21			
Connecticut River development, East Barnett, Vt.	do.	Engineers.	Asked wage increase.	Unable to adjust.	July 23	July 26	70	
Abner-Drury Co., Washington, D. C.	do.	Stationary firemen.	Asked restoration of 50 cents cut from wages in 1924.	Pending.	(1)		3	
Lathers, Philadelphia, Pa.	do.	Lathers.	Asked wage increase.	Adjusted. Compromise settlement; wage increase and signed agreement.	July 1	July 31	300	
Rugeries & Belfonte, Philadelphia, Pa.	do.	Italian bakers.	Asked wage increase and improved conditions.	Adjusted. Agreement concluded, fixing hours, wages, etc.	July 15	July 24	85	
Stant Machine Co., Connorsville, Ind.	Lockout.	Metal polishers.	Dispute relative to union cards.	Pending.	July 23		21	100
Shell Oil Co., California.	Controversy.	Oil workers.	Renewal of agreement.	Adjusted. Memorandum of terms concluded with some changes.	July 15	July 19	6,000	4,000
Granada Theater, Olyphant, Pa.	Strike.	Projectionists.	Company refused to sign union agreement.	Pending.	July 22		(1)	
Teamsters and chauffeurs, Camden, N. J.	Lockout.	Teamsters.	Union difficulty.	Adjusted. All returned except 2 discharged by company.	July 24	July 29	18	
Beyer Construction Co., Clarion, Slippery Rock, and California, Pa.	Strike.	Building.	Asked union wages and conditions.	Adjusted. Union conditions accepted.	July 26	Aug. 5	30	15
Theater musicians, Terre Haute, Ind.	do.	Musicians.	Alleged violation of contract.	Unable to adjust.	July 28	Aug. 3	15	32
Hospital building, Muncie, Ind.	do.	Plumbers.	Asked \$1.07½ per hour to Jan. 1, 1929, and \$1.12½ from then on.	Adjusted. Allowed \$1.05 to Jan. 1, 1929, and \$1.12½ from then on.	July 31	Aug. 5	35	200
Total.							51,330	22,637

1 Not reported.

LABOR TURNOVER

Labor Turnover in American Factories

THE Bureau of Labor Statistics a month ago took over from the Metropolitan Life Insurance Co. the task of collecting and publishing each month labor-turnover rates. In this shift the bureau has had the hearty cooperation of the Metropolitan, of the individual reporting firms, and of the cooperating agencies.

In the past the labor-turnover rates have been shown on an equivalent annual basis only. This month, however, the bureau publishes rates expressed both on a monthly basis and on an equivalent annual basis.

The equivalent annual rates simply mean that if the separation rates and the accession rates as shown for the specified month remained constant for a year the rates would be as shown in the table headed equivalent annual rates.

The rates are stated as percentages of the number on the pay roll.

All of the rates relating to separation and accession are elements of the broad subject of labor turnover and each classification tells its own story. Yet no one of these classifications is, per se, the turnover rate. The definition of the turnover rate as understood by the Bureau of Labor Statistics is "the rate of replacement."

It is self-evident that a growing plant has an accession rate higher than the separation rate, or it would not be growing. A declining plant has a separation rate greater than the accession rate. The turnover rate is the rate necessary to keep the plant going on the volume of business that it may have for the time being. The net turnover rate, therefore, is the same as the accession rate in a declining force and the same as the separation rate in a plant having an increasing force. The net turnover rate is designated as such at the end of the tables.

AVERAGE LABOR TURNOVER RATES IN SELECTED AMERICAN FACTORIES¹

[Each month's rates are here stated on an equivalent annual basis. The rates are per 100 employees on the pay roll]

Month	Separation rates								Accession rate		Net turnover rate	
	Quit		Lay-off		Discharge		Total ²		1928	1929	1928	1929
	1928	1929	1928	1929	1928	1929	1928	1929				
January.....	15.7	26.7	8.5	4.2	3.6	5.3	27.8	36.2	33.4	58.6	27.8	36.2
February.....	15.1	31.0	7.9	4.7	4.6	6.0	27.6	41.7	31.6	56.9	27.6	41.7
March.....	20.1	36.8	8.4	5.7	4.3	6.7	32.8	49.2	35.9	61.2	32.8	49.2
April.....	26.0	43.3	7.1	5.5	5.1	6.9	38.2	55.7	40.0	70.2	38.2	55.7
May.....	28.2	40.8	8.3	5.7	5.0	5.6	41.5	52.1	47.2	59.9	41.5	52.1
June.....	27.1	39.5	7.5	5.4	4.9	6.2	39.5	51.1	41.3	60.9	39.5	51.1
July.....	27.2	³ 35.4	5.9	³ 4.8	4.9	³ 4.8	38.0	³ 45.0	46.9	³ 61.2	38.0	³ 45.0
August.....	31.9	-----	5.1	-----	5.3	-----	42.3	-----	55.7	-----	42.3	-----
September.....	40.3	-----	5.0	-----	5.3	-----	50.6	-----	56.9	-----	50.6	-----
October.....	31.9	-----	4.7	-----	5.3	-----	41.9	-----	57.1	-----	41.9	-----
November.....	25.6	-----	4.8	-----	4.9	-----	35.3	-----	50.1	-----	35.3	-----
December.....	20.1	-----	4.7	-----	4.4	-----	29.2	-----	38.1	-----	29.2	-----
Average.....	25.8	-----	6.5	-----	4.8	-----	37.1	-----	44.5	-----	37.1	-----

¹ Now numbering over 300 with over 600,000 employees. The form of average used is the unweighted median of company rates.

² Arithmetic sum of quit, lay-off, and discharge rates.

³ Preliminary; subject to revision.

AVERAGE LABOR TURNOVER RATES IN SELECTED AMERICAN FACTORIES—Con.

[Monthly rates per 100 employees on the pay roll]

Month	Separation rates								Accession rate		Net turn-over rate	
	Quit		Lay-off		Discharge		Total					
	1928	1929	1928	1929	1928	1929	1928	1929	1928	1929	1928	1929
January.....	1.3	2.3	0.7	0.4	0.3	0.4	2.4	3.1	2.8	5.0	2.4	3.1
February.....	1.2	2.4	.6	.4	.4	.5	2.1	3.2	2.4	4.4	2.1	3.2
March.....	1.7	3.1	.7	.5	.4	.6	2.8	4.2	3.0	5.2	2.8	4.2
April.....	2.1	3.6	.6	.5	.4	.6	3.1	4.6	3.3	5.8	3.1	4.6
May.....	2.4	3.5	.7	.5	.4	.5	3.5	4.4	4.0	5.1	3.5	4.4
June.....	2.2	3.2	.6	.4	.4	.5	3.2	4.2	3.4	5.0	3.2	4.2
July.....	2.3	¹ 3.0	.5	¹ .4	.4	¹ .4	3.2	¹ 3.8	4.0	¹ 5.2	3.2	¹ 3.8
August.....	2.7	-----	.4	-----	.4	-----	3.6	-----	4.7	-----	3.6	-----
September.....	3.3	-----	.4	-----	.4	-----	4.2	-----	4.7	-----	4.2	-----
October.....	2.7	-----	.4	-----	.4	-----	3.6	-----	4.8	-----	3.6	-----
November.....	2.1	-----	.4	-----	.4	-----	2.9	-----	4.1	-----	2.9	-----
December.....	1.7	-----	.4	-----	.4	-----	2.5	-----	3.2	-----	2.5	-----
Average.....	2.1	-----	.5	-----	.4	-----	3.1	-----	3.7	-----	3.1	-----

¹ Preliminary; subject to revision.

The accession rate expressed on an equivalent annual basis was 61.2 compared with 60.9 in June, 1929, while the total separation rate for July was 45 compared with 51.1 for June. The quit rate, the lay-off rate, and the discharge rate were all lower for July than for June.

Comparing July, 1929, with July, 1928, the quit rate is higher this year than last year, as is the total separation rate and the accession rate. In contrast both the lay-off rate and the discharge rate are lower than a year ago. The fact that employers are not laying off men at as great a rate as a year ago tends to indicate that factories are running steadier and that business is more stable, since it is not necessary to curtail production or lay off workers.

The bureau endeavors to reach the public with this labor-turnover index as early as possible. It is urged, therefore, that companies reporting direct to the bureau, or to cooperation agencies, forward their reports as early as possible each month.

WAGES AND HOURS OF LABOR

Hours and Earnings in Bituminous Coal Mining, 1926 and 1929

THIS preliminary report presents summary figures of average hours and earnings of employees in the various occupations in bituminous coal mining in the United States as of 1929 in comparison with like figures for 1926. The figures are the results of a study of the industry in 1929 by the Bureau of Labor Statistics, details of which will be published later in bulletin form.

The averages were computed from data covering hours and earnings of individual employees for a half-month pay period. The pay periods for each of 513 mines, or 96 per cent of the 535 mines included in the report, was for a half-month in the first quarter of 1929 and for each of 351 mines, or 66 per cent of the total, was for a period in March. The averages are therefore representative of hours and earnings of employees in bituminous coal mining in the first three months in 1929. The wage data used in compiling this report, except for a very few companies which made transcripts of their records for the bureau, were taken directly from the pay rolls and other records of the companies by agents of the bureau for representative mines in Alabama, Colorado, Illinois, Indiana, Kansas, Kentucky, Ohio, Pennsylvania, Tennessee, Virginia, and West Virginia.

The 1929 figures are for a total of 152,211 employees, or 26 per cent of the 593,918 mine workers reported by the United States Bureau of Mines as engaged in the mining of bituminous coal in 1927, and represent 28 per cent of the 542,760 reported by the Bureau of Mines in the States covered by this study. Of the 152,211 included in the report 137,313, or 90 per cent, were underground or "inside" wage earners. The remaining 14,898 were known as surface or "outside" employees, though a comparatively few of them may at times work underground.

The three basic occupations in bituminous coal mining are those of hand or pick miners, machine miners, and hand loaders. They represent approximately 63 per cent of all wage earners in the industry and are usually paid a rate per ton of 2,000 pounds, run of mine, that is, of coal as mined, including "slack."

Hand or pick miners undercut coal with a pick, cutting some distance back from the "face" or upright surface of the seam, separate it from the seam with pick or explosives, and shovel the coal from the floor of the mine into mine cars. Machine miners undercut the seam of coal with electric or compressed-air coal-mining machines. After the seam of coal has been undercut, hand loaders usually blast the coal from the seam or bed and with hand shovels load it into mine cars or onto conveyors which empty into the cars. Shot-firers do the blasting in some mines. Contract loaders, machine loaders, gang miners, and machine miners' helpers are of much less importance in numbers, the four occupations combined comprising only 12 per cent of the 152,211 employees covered by this study.

As the miners and loaders are usually paid tonnage instead of time rates, very few companies keep a daily time record for such employees. It was necessary therefore, in order to ascertain the hours worked by the miners and loaders, to arrange with mine officials to have kept a special day-by-day record of the hours of each employee for a half-month pay period. Employees in all occupations inside and outside the mines, except miners and loaders, are usually paid time rates—that is, rates per hour or day, and in a few instances per week or month. The hours worked by time workers and the earnings of both time workers and tonnage workers are of regular record.

Table 1 shows for each State and for all States combined, for 1926 and 1929, the average number of days and hours worked, and average earnings made in a half-month by miners and loaders, the employees who actually mine the coal and load it into mine cars. The average hours and earnings per hour presented for each of the seven specified occupations are based on (1) time at the face, including time for lunch, and (2) total time in mine, including time for lunch and travel time in the mine from its opening to the face and return. The term "face" means the perpendicular surface of the seam of coal on which the men are working, or broadly their place of work in the mine. The time for lunch, as reported, was usually about 30 minutes. The round-trip travel time in the different mines ranged from 10 minutes per day for the mine with the shortest time to two hours for the one with the longest time. The weighted average time of travel in mine from opening to place of work in mine and return for the 99,405 miners and loaders of the 535 mines was 48 minutes per day or 24 minutes each way.

The 1929 averages in Table 1 are for 70,853 hand loaders, 19,666 hand or pick miners, 5,937 machine miners (cutters), 765 machine miners' helpers, 584 contract loaders, 423 machine loaders, and 1,177 gang miners, or a total of 99,405 employees.

In five of the seven occupations the average number of days on which employees worked and the hours worked in the half-month were less in 1929 than in 1926, in one the average days were the same for the two years but the average hours were greater in 1929, and in one the average days and hours were greater in 1929 than in 1926.

In each of the four more important occupations in number of employees—the four combined comprising 98 per cent of the 99,405 miners and loaders—average earnings per hour were decidedly less in 1929 than in 1926. Based on time at the face, including time for lunch, average earnings per hour for hand loaders decreased from 77.9 cents in 1926 to 64.8 cents in 1929, or approximately 17 per cent; for hand or pick miners, decreased from 78.3 cents in 1926 to 67.3 cents, or 14 per cent; for machine miners, decreased 15 per cent; and for gang miners, decreased 27 per cent. Average earnings per hour based on time at face, including time for lunch, for contract loaders increased from 84.9 cents in 1926 to 86.9 cents in 1929; for machine loaders increased from 78.8 cents in 1926 to 81 cents in 1929; and for machine miners' helpers increased from 63.1 cents in 1926 to 70.3 cents in 1929. On the same basis average earnings per hour in 1929 for hand loaders in the various States ranged from 38.8 cents for the State with the

lowest to 92.2 cents for the one with the highest average, and for pick miners ranged from 50 to 85.3 cents per hour.

Average earnings in one-half month in 1929 for hand loaders in the different States ranged from \$20.96 to \$64.12. The average for the occupation in all States combined decreased from \$57.48 in 1926 to \$45.78 in 1929, or 20 per cent. Average earnings per start or day by States ranged from \$3.43 to \$7.03, and the average for all States combined decreased from \$6.12 in 1926 to \$5.15 in 1929, or 16 per cent. In the other principal occupations also there was a marked decrease in average earnings for the half-month and per start or per day.

TABLE 1.—AVERAGE NUMBER OF STARTS (DAYS OR PARTS OF DAYS) AND AVERAGE HOURS AND EARNINGS OF MINERS AND LOADERS, 1926 AND 1929, BY SPECIFIED OCCUPATIONS

Occupation and State	Year	Number of mines	Number of employees	Average number of starts (days) in half-month pay period	Average hours—				Average earnings—			
					In half month based on—		Per start based on—		Per hour based on—		In half-month pay period	Per start
					Time at face including lunch	Time in mine	Time at face including lunch	Time in mine	Time at face including lunch	Time in mine		
<i>Loaders, contract:</i>												
Alabama.....	1926	17	291	9.4	83.5	91.8	8.8	9.7	\$0.717	\$0.652	\$59.89	\$6.35
	1929	12	208	9.0	79.0	87.9	8.8	9.8	.720	.647	56.86	6.34
Colorado.....	1926	1	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Kentucky.....	1926	26	244	10.8	88.5	94.3	8.2	8.8	.883	.828	78.11	7.25
	1929	22	221	10.2	85.8	93.3	8.4	9.1	.875	.805	75.05	7.36
Pennsylvania.....	1929	2	8	12.1	103.3	115.1	8.5	9.5	1.337	1.199	138.06	41.39
Tennessee.....	1926	1	7	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
	1929	1	25	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Virginia.....	1926	9	103	10.5	86.2	92.9	8.2	8.9	.988	.917	85.17	8.11
	1929	7	18	11.1	82.0	87.3	7.4	7.9	1.077	1.012	88.34	7.95
West Virginia.....	1926	7	48	9.9	75.0	82.1	7.6	8.3	1.210	1.106	90.83	9.20
	1929	21	104	10.7	93.2	101.5	8.7	9.4	1.085	.997	101.14	9.42
Total.....	1926	61	694	10.1	85.3	92.4	8.4	9.1	.849	.784	72.43	7.16
	1929	65	584	9.7	82.9	90.8	8.6	9.4	.869	.793	72.07	7.45
<i>Loaders, hand:</i>												
Alabama.....	1926	29	3,070	8.5	74.2	81.4	8.7	9.6	.478	.436	35.47	4.16
	1929	19	3,137	8.2	72.4	79.5	8.8	9.7	.388	.353	28.08	3.43
Colorado.....	1926	15	1,099	10.0	81.2	88.3	8.1	8.8	.789	.726	64.07	6.39
	1929	13	769	6.8	53.8	57.6	7.9	8.4	.736	.688	39.62	5.78
Illinois.....	1926	33	11,511	9.4	77.0	85.1	8.2	9.0	1.078	.976	83.07	8.80
	1929	30	9,671	9.1	74.8	81.0	8.2	8.9	.857	.791	64.12	7.03
Indiana.....	1926	9	1,602	10.3	72.8	78.1	7.1	7.6	1.116	1.040	81.25	7.90
	1929	21	2,634	8.2	62.4	66.5	7.6	8.1	.922	.865	57.52	7.02
Kansas.....	1929	2	80	4.0	33.6	35.8	8.4	9.0	.719	.676	24.19	6.07
Kentucky.....	1926	86	9,904	9.0	69.7	74.2	7.8	8.3	.617	.579	42.98	4.78
	1929	64	9,080	8.2	65.5	71.2	8.0	8.7	.595	.547	38.98	4.77
Ohio.....	1926	45	6,747	9.2	71.6	77.8	7.8	8.4	.817	.752	58.48	6.35
	1929	41	6,948	8.9	69.2	75.1	7.8	8.5	.592	.545	40.93	4.61
Pennsylvania.....	1926	130	10,065	9.7	78.7	85.9	8.1	8.8	.711	.651	55.94	5.75
	1929	120	18,439	9.3	75.1	83.2	8.1	9.0	.601	.542	45.14	4.88
Tennessee.....	1926	10	625	8.3	63.5	68.2	7.7	8.3	.436	.406	27.68	3.35
	1929	9	488	5.9	45.1	48.1	7.6	8.1	.464	.436	20.96	3.54
Virginia.....	1926	21	1,894	9.0	70.9	76.1	7.8	8.4	.597	.556	42.33	4.68
	1929	22	2,391	9.7	72.1	77.2	7.4	8.0	.549	.513	39.62	4.09
West Virginia.....	1926	110	10,897	9.4	67.1	73.3	7.1	7.8	.776	.710	52.05	5.51
	1929	134	17,216	9.0	69.1	76.2	7.7	8.4	.653	.591	45.06	4.99
Total.....	1926	488	66,414	9.4	73.7	80.3	7.8	8.6	.779	.715	57.48	6.12
	1929	475	70,853	8.9	70.6	77.3	7.9	8.7	.648	.592	45.78	5.15

¹ Data included in total.

TABLE 1.—AVERAGE NUMBER OF STARTS (DAYS OR PARTS OF DAYS) AND AVERAGE HOURS AND EARNINGS OF MINERS AND LOADERS, 1926 AND 1929, BY SPECIFIED OCCUPATIONS—Continued

Occupation and State	Year	Number of mines	Number of employees	Average number of starts (days) in half-month pay period	Average hours—				Average earnings—			
					In half month based on—		Per start based on—		Per hour based on—		In half-month pay period	Per start
					Time at face including lunch	Time in mine	Time at face including lunch	Time in mine	Time at face including lunch	Time in mine		
<i>Loaders, machine:</i>												
Alabama.....	1929	1	28	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Illinois.....	1926	3	34	9.9	84.9	92.6	8.6	9.4	1.043	.957	88.57	8.96
	1929	3	85	8.8	73.0	79.9	8.3	9.1	1.065	.974	77.79	8.86
Indiana.....	1926	1	27	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
	1929	3	85	10.0	78.7	83.4	7.8	8.3	1.093	1.032	86.04	8.56
Kentucky.....	1926	4	23	8.8	88.6	93.9	10.1	10.7	.686	.647	60.81	6.92
	1929	4	26	9.2	85.1	92.8	9.3	10.1	.632	.579	53.76	5.87
Ohio.....	1926	1	17	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
	1929	1	2	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Pennsylvania.....	1926	6	39	10.5	88.5	97.7	8.5	9.3	.704	.638	62.32	5.96
	1929	8	72	9.5	84.8	95.1	9.0	10.0	.712	.635	60.37	6.37
Tennessee.....	1926	1	18	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
	1929	1	18	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Virginia.....	1926	2	36	8.2	82.9	87.9	10.1	10.7	.551	.519	45.68	5.57
	1929	3	32	11.8	112.5	117.6	9.5	10.0	.565	.541	63.56	5.39
West Virginia.....	1926	5	112	10.2	89.8	95.8	8.7	9.3	.717	.671	64.32	6.26
	1929	4	75	11.2	98.2	108.4	8.8	9.7	.743	.673	72.94	6.52
Total.....	1926	23	306	9.9	87.3	93.7	8.8	9.5	.788	.735	68.80	6.96
	1929	28	423	9.8	84.5	91.6	8.6	9.4	.810	.747	68.39	7.00
<i>Miners, gang:</i>												
Alabama.....	1926	1	13	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
	1929	1	17	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Illinois.....	1926	21	919	9.6	79.6	87.1	8.3	9.1	1.411	1.289	112.28	11.73
	1929	15	738	9.8	81.9	88.2	8.4	9.0	1.108	1.029	90.75	9.28
Indiana.....	1926	5	71	9.4	71.2	75.8	7.6	8.1	1.335	1.254	95.11	10.14
	1929	3	73	11.5	91.4	97.1	7.9	8.4	1.319	1.242	120.63	10.45
Kentucky.....	1926	2	15	9.1	75.0	82.9	8.3	9.1	.685	.619	51.34	5.66
	1929	3	41	5.5	43.6	47.3	8.0	8.7	.616	.567	26.84	4.91
Ohio.....	1926	3	47	11.2	88.8	97.9	7.9	8.8	1.084	.982	96.22	8.61
	1929	2	9	10.4	60.1	67.6	5.8	6.5	1.096	.973	65.80	6.30
Pennsylvania.....	1926	7	272	8.9	76.9	85.1	8.6	9.5	.721	.651	55.42	6.21
	1929	2	27	9.2	76.0	79.0	8.2	8.6	.848	.816	64.48	6.99
Total.....	1926	32	1,065	9.5	78.7	86.0	8.2	9.0	1.377	1.260	108.33	11.36
	1929	33	1,177	9.5	79.7	86.3	8.4	9.1	1.010	.932	80.50	8.45
<i>Miners, hand or pick:</i>												
Alabama.....	1926	17	1,537	9.7	81.8	90.8	8.4	9.3	.540	.486	44.12	4.53
	1929	8	1,120	8.5	76.4	84.6	9.0	9.9	.531	.480	40.58	4.76
Colorado.....	1926	13	1,103	10.2	77.4	86.4	7.6	8.4	.787	.705	60.95	5.95
	1929	15	1,150	6.8	50.5	55.6	7.4	8.1	.853	.775	43.08	6.30
Illinois.....	1926	13	3,155	9.8	77.4	84.1	7.9	8.6	.923	.850	71.47	7.32
	1929	14	2,488	11.3	88.5	96.7	7.9	8.6	.716	.656	63.40	5.63
Indiana.....	1926	8	1,146	8.9	65.4	70.7	7.3	7.9	1.047	.969	68.50	7.68
	1929	12	1,543	9.0	61.5	65.4	6.9	7.3	.796	.749	48.95	5.47
Kansas.....	1926	11	1,749	9.4	67.4	71.7	7.2	7.7	.809	.761	54.53	5.83
	1929	7	1,252	7.3	50.9	55.9	7.0	7.7	.711	.647	36.16	4.97
Kentucky.....	1926	10	418	10.2	85.0	91.5	8.5	9.1	.647	.601	54.99	5.47
	1929	19	731	9.8	82.8	89.6	8.4	9.1	.623	.575	51.57	5.26
Ohio.....	1926	5	89	9.9	73.5	79.6	7.4	8.0	.879	.813	64.67	6.54
	1929	1	3	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Pennsylvania.....	1926	110	8,766	9.9	81.2	89.6	8.2	9.0	.768	.696	62.39	6.27
	1929	107	9,123	9.9	80.6	90.3	8.1	9.1	.657	.586	52.91	5.35
Tennessee.....	1926	7	544	8.7	69.6	75.6	8.0	8.7	.436	.402	30.37	3.49
	1929	10	559	8.0	61.5	65.3	7.7	8.1	.500	.471	30.79	3.84
Virginia.....	1926	1	25	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
West Virginia.....	1926	59	2,062	9.8	69.5	75.7	7.1	7.7	.794	.730	55.21	5.65
	1929	37	1,697	9.0	68.6	74.9	7.6	8.3	.669	.612	45.83	5.10
Total.....	1926	254	20,594	9.8	77.0	84.3	7.9	8.6	.783	.715	60.31	6.18
	1929	230	19,666	9.4	74.7	82.5	7.9	8.8	.673	.609	50.29	5.33

1 Data included in total.

TABLE 1.—AVERAGE NUMBER OF STARTS (DAYS OR PARTS OF DAYS) AND AVERAGE HOURS AND EARNINGS OF MINERS AND LOADERS, 1926 AND 1929, BY SPECIFIED OCCUPATIONS—Continued

Occupation and State	Year	Number of mines	Number of employees	Average number of starts (days) in half-month pay period	Average hours—				Average earnings—			
					In half month based on—		Per start based on—		Per hour based on—		In half-month pay period	Per start
					Time at face including lunch	Time in mine	Time at face including lunch	Time in mine	Time at face including lunch	Time in mine		
<i>Miners, machine (cutters):</i>												
Alabama.....	1926	28	149	10.2	91.8	100.5	9.0	9.8	.911	.832	83.61	8.17
	1929	15	129	9.3	87.1	95.1	9.3	10.2	.742	.680	64.65	6.92
Colorado.....	1926	13	109	10.5	88.8	95.4	8.4	9.1	1.071	.997	95.12	9.03
	1929	10	52	6.1	48.8	52.0	8.0	8.5	1.172	1.099	57.17	9.32
Illinois.....	1926	33	1,326	9.7	74.5	82.4	7.7	8.5	1.501	1.358	111.89	11.57
	1929	32	1,122	9.9	79.2	85.8	8.0	8.6	1.139	1.052	90.29	9.10
Indiana.....	1926	10	206	9.6	74.8	79.7	7.8	8.3	1.614	1.514	120.68	12.53
	1929	22	356	9.4	71.4	75.9	7.6	8.1	1.295	1.217	92.40	9.86
Kansas.....	1929	2	8	4.5	39.6	42.1	8.8	9.4	.823	.773	32.56	7.24
Kentucky.....	1926	86	805	9.7	84.6	89.3	8.7	9.2	.956	.905	80.83	8.34
	1929	60	669	9.2	80.5	86.9	8.8	9.5	.963	.892	77.48	8.43
Ohio.....	1926	44	700	10.5	83.6	90.7	7.9	8.6	1.202	1.108	100.49	9.55
	1929	41	663	10.2	84.2	91.1	8.2	8.9	.876	.810	73.78	7.21
Pennsylvania.....	1926	128	1,800	10.9	94.2	102.5	8.6	9.4	1.133	1.041	106.70	9.75
	1929	117	1,568	10.3	89.6	98.8	8.7	9.6	.978	.887	87.67	8.50
Tennessee.....	1926	10	38	9.8	85.3	91.8	8.7	9.3	.518	.482	44.20	4.49
	1929	9	28	6.6	54.8	57.6	8.3	8.8	.651	.619	35.65	5.42
Virginia.....	1926	20	97	10.9	99.4	105.3	9.1	9.7	.821	.775	81.60	7.49
	1929	21	128	11.1	99.3	104.7	8.9	9.4	.787	.746	78.14	7.02
West Virginia.....	1926	92	825	10.7	89.5	96.9	8.4	9.1	1.200	1.108	107.39	10.05
	1929	127	1,214	10.2	92.1	100.1	9.0	9.8	1.062	.976	97.77	9.54
Total.....	1926	464	6,055	10.3	86.0	93.3	8.3	9.0	1.195	1.101	102.68	9.93
	1929	456	5,937	10.0	85.0	92.4	8.5	9.3	1.018	.936	86.52	8.68
<i>Miners, machine (cutters), helpers:</i>												
Alabama.....	1926	24	170	8.1	72.0	79.4	8.8	9.7	.597	.541	42.96	5.28
	1929	13	101	8.1	75.4	83.1	9.3	10.2	.528	.480	39.84	4.90
Colorado.....	1926	3	6	10.7	89.2	99.3	8.4	9.3	.939	.843	83.70	7.85
	1929	7	18	7.4	56.6	60.6	7.7	8.2	.981	.916	55.54	7.52
Kansas.....	1929	2	9	4.3	38.1	40.4	8.8	9.3	.810	.762	30.81	7.11
Kentucky.....	1926	53	353	8.4	74.7	79.0	8.9	9.4	.718	.679	53.64	6.41
	1929	36	269	8.6	76.0	81.8	8.9	9.6	.715	.665	54.35	6.35
Pennsylvania.....	1926	22	151	10.6	94.8	102.2	8.9	9.6	.839	.778	79.54	7.47
	1929	29	183	10.4	93.8	102.2	9.0	9.8	.822	.754	77.05	7.39
Tennessee.....	1926	9	39	6.4	60.8	64.2	9.4	10.0	.371	.351	22.55	3.50
	1929	8	38	4.5	38.4	40.6	8.5	9.0	.410	.388	15.76	3.48
Virginia.....	1926	16	72	8.6	83.6	87.8	9.8	10.2	.489	.465	40.87	4.77
	1929	12	32	10.7	95.5	100.5	9.0	9.4	.492	.468	46.98	4.41
West Virginia.....	1926	24	91	9.3	86.0	90.9	9.3	9.8	.620	.586	53.30	5.73
	1929	29	115	10.3	97.7	104.8	9.5	10.2	.683	.637	66.75	6.47
Total.....	1926	151	882	8.8	79.0	84.5	9.0	9.6	.681	.637	53.77	6.14
	1929	136	765	9.0	81.5	88.1	9.0	9.8	.703	.650	57.25	6.34

¹ Data included in total.

Table 2 presents, for each State and for all States combined, 1929, average starts or days and average hours and earnings in one-half month. The averages are for all miners and loaders that were included in the study in that year. The average number of starts or days worked in the half-month for all States combined was 9.1 and the range by States was from 6.8 to 9.8. Based upon time at face, including time for lunch, the average number of hours worked in the half-month was 72.6 and the range was from 49.7 to 77.7. On the

same basis the average hours per start were 8, with a range from 7.1 to 8.9. Average earnings per hour on the same basis were 68.7 cents and ranged from 45.3 cents to 92.6 cents. Average earnings in the half-month were \$49.85 and the range was from \$26.91 to \$67.55, while the average earnings per start for all States combined during the same period were \$5.50, and the range was \$3.86 for the State with the lowest to \$7.04 for the one with the highest average earnings per start or day.

TABLE 2.—NUMBER OF MINERS AND LOADERS, AVERAGE STARTS, HOURS, AND EARNINGS IN HALF MONTH PAY PERIOD, 1929, BY STATES

State	Number of—		Average starts in half month covered	Average hours—				Average earnings			
	Mines	Miners and loaders		In half month based on—		Per start based on—		Per hour based on—		In half-month pay period	Per start
				Time at face including lunch	Time in mine	Time at face including lunch	Time in mine	Time at face including lunch	Time in mine		
Alabama.....	22	4,740	8.3	74.2	81.6	8.9	9.8	\$0.453	\$0.411	\$33.58	\$4.03
Colorado.....	16	1,989	6.8	51.8	56.3	7.6	8.2	.815	.750	42.22	6.18
Illinois.....	37	14,104	9.6	77.9	84.5	8.1	8.8	.867	.799	67.55	7.04
Indiana.....	29	4,691	8.6	63.5	67.6	7.4	7.8	.926	.870	58.85	6.83
Kansas.....	8	1,349	7.0	49.7	54.5	7.1	7.7	.712	.650	35.39	5.03
Kentucky.....	64	11,037	8.4	68.2	74.1	8.1	8.8	.634	.584	43.24	5.15
Ohio.....	41	7,625	9.0	70.5	76.5	7.8	8.5	.622	.573	43.83	4.87
Pennsylvania.....	136	29,665	9.5	77.7	86.4	8.2	9.1	.645	.580	50.13	5.27
Tennessee.....	15	1,183	7.0	53.8	57.1	7.7	8.2	.500	.471	26.91	3.86
Virginia.....	22	2,601	9.8	74.3	79.4	7.6	8.1	.568	.532	42.23	4.30
West Virginia.....	145	20,421	9.1	70.8	77.9	7.8	8.5	.689	.626	48.77	5.35
Total.....	5	99,405	9.1	72.6	79.6	8.0	8.8	.687	.626	49.85	5.50

Table 3 presents for 1926 and 1929 the average number of starts (days) and average hours and earnings for 9 of the most important inside and 4 outside occupations and for 2 groups of "other employees" in which the employees are usually time workers—that is, paid at rates per hour or day and a few per week or month. The averages are based on hours actually worked. The groups of employees designated in the table as "other employees" include all wage earners usually paid time rates in all occupations in the industry other than those in the nine specified inside and four specified outside occupations. There is not a sufficient number of employees in any one occupation in either of these groups to warrant separate tabulation.

The table shows that average days and hours worked in the half month were greater for engineers and pumpmen than for any of the other occupations. Employees in these two occupations frequently work on Sunday and may also work overtime on week days. It will be seen from the table that average days, hours, and earnings in the half month and average earnings per day and per hour were less for each occupation in 1929 than in 1926. The decrease in average earnings per hour for brakemen was from 68.7 cents in 1926 to 59.6 cents in 1929, or 13 per cent; for inside laborers, 12 per cent; for motormen, 10 per cent; for trackmen, 10 per cent; for outside laborers, 10 per cent; for "other employees, inside," 7 per cent, and for "other employees, outside," the decrease was nearly $3\frac{1}{2}$ per cent.

TABLE 3.—AVERAGE NUMBER OF STARTS (DAYS OR PARTS OF DAYS) AND AVERAGE HOURS AND EARNINGS, 1926 AND 1929, BY OCCUPATIONS

[Data in this table are for employees of all inside and outside occupations except miners and loaders]

Occupation	Year	Number of mines	Number of employees	Average number of starts (days) made in half-month pay period	Average hours worked—		Average earnings—		
					In half-month pay period	Per start (day)	In half-month pay period	Per start (day)	Per hour
Inside work									
Brakemen.....	1926	518	4,368	9.9	83.8	8.5	\$57.61	\$5.82	\$0.687
	1929	505	4,854	9.5	81.0	8.5	48.31	5.08	.596
Bratticemen and timbermen.....	1926	484	2,800	10.8	89.2	8.3	66.20	6.16	.742
	1929	456	2,901	10.6	88.3	8.3	57.19	5.39	.648
Cagers.....	1926	188	414	11.1	99.5	9.0	80.73	7.29	.811
	1929	192	392	10.9	96.1	8.8	65.79	6.03	.685
Drivers.....	1926	320	4,530	10.2	84.4	8.3	50.80	5.88	.708
	1929	282	3,811	9.5	77.8	8.2	49.52	5.24	.637
Laborers.....	1926	500	8,823	9.4	78.7	8.4	48.82	5.18	.620
	1929	456	7,842	9.0	75.2	8.3	40.90	4.53	.544
Motormen.....	1926	520	4,239	10.8	94.7	8.7	67.97	6.27	.718
	1929	504	4,860	10.3	89.6	8.7	58.21	5.64	.649
Pumpmen.....	1926	402	1,081	12.7	118.3	9.3	74.04	5.84	.626
	1929	390	1,148	12.3	113.5	9.2	62.45	5.06	.550
Trackmen.....	1926	554	4,246	10.8	91.0	8.4	64.15	5.92	.705
	1929	532	4,653	10.4	85.8	8.3	54.47	5.26	.635
Trappers (boys).....	1926	207	693	9.9	79.7	8.0	30.17	3.04	.379
	1929	200	633	9.4	75.6	8.1	26.79	2.86	.354
Other employees.....	1926	522	5,745	11.3	98.0	8.7	75.96	6.71	.775
	1929	518	6,814	10.7	92.1	8.6	66.38	6.18	.721
Outside work									
Blacksmiths.....	1926	540	909	11.9	104.8	8.8	77.94	6.56	.743
	1929	516	811	11.3	99.5	8.8	67.47	5.96	.678
Carpenters and car-repair men.....	1926	484	1,545	11.4	98.3	8.6	64.28	5.64	.654
	1929	471	1,458	10.8	92.9	8.6	56.84	5.24	.612
Engineers.....	1926	320	674	13.3	119.6	9.0	91.17	6.83	.762
	1929	313	652	12.8	111.9	8.7	79.56	6.21	.711
Laborers.....	1926	550	7,877	10.7	92.6	8.7	50.53	4.74	.546
	1929	527	7,834	10.0	86.8	8.7	42.78	4.30	.493
Other employees.....	1926	540	4,201	12.1	108.1	8.9	65.31	5.41	.604
	1929	506	4,143	11.1	98.7	8.9	57.53	5.18	.583

Table 4 shows for 1929 the number and per cent of the 70,853 hand loaders, 19,666 hand or pick miners, and 5,937 machine miners (cutters) in each classified hourly earnings group, based on (1) the actual hours at the face or seam of coal, including time for lunch, and (2) the total hours in the mine, which includes the working hours, time taken for lunch, and time of travel from the opening of the mine to the face and return. It was shown in Table 1 that the average hours per day at the face for hand loaders were 7.9 and that the average, based on total time in mine, was 8.7, the difference per day being eight-tenths of an hour, or 48 minutes, which represents the average time of travel inside the mine from the entrance of the mine to the place of work and return.

Average earnings per hour computed on the basis of hours at the face (including time for lunch) are greater than when computed on the basis of total hours in the mine (including time of travel and time for lunch) because the latter average includes 48 minutes per day of nonproductive time spent in travel.

Of the 70,853 hand loaders classified in Table 4, it is seen that on the basis of hours at the face, including time for lunch, the largest group, 12,318, or 17 per cent, earned as much as 50 but less than

60 cents per hour. On the basis of total hours in the mine, including working time, time for lunch, and travel time, 12,989, or 18 per cent, were in this earnings group. Looking at the cumulative per cent columns in the table, it will be observed that based on time at the face, including time for lunch, 47 per cent of the hand loaders earned less than 60 cents per hour. Based on time in mine, which includes time for lunch and travel time, 56 per cent earned less than that amount per hour. Again, when based on time at the face, including time for lunch, 75 per cent earned less than 80 cents per hour, 93 per cent earned less than \$1 and 99 per cent earned less than \$1.30 per hour. Considering the same earnings groups when based on time in mine, including lunch and travel time, 82 per cent earned less than 80 cents, 96 per cent earned less than \$1, and practically 100 per cent earned less than \$1.30 per hour.

As may be seen from Table 1, the average earnings per hour, based on time at the face, including time for lunch, was 64.8 cents. Based on time in the mine, including lunch time and travel time, the average per hour was 59.2 cents.

TABLE 4.—NUMBER AND PER CENT OF LOADERS, HAND OR PICK MINERS, AND MACHINE MINERS (CUTTERS) WHOSE HOURLY EARNINGS WERE WITHIN EACH CLASSIFIED AMOUNT, 1929

Classified earnings per hour	Number		Per cent			
	Based on time at face, in- cluding lunch time	Based on time in mine	Actual		Cumulative	
			Based on time at face, in- cluding lunch time	Based on time in mine	Based on time at face, in- cluding lunch time	Based on time in mine
<i>Loaders, hand</i>						
Under 30 cents	3,151	4,736	4	7	4	7
30 and under 40 cents	5,778	9,022	10	13	14	19
40 and under 50 cents	10,846	13,138	15	19	29	38
50 and under 60 cents	12,318	12,989	17	18	47	56
60 and under 70 cents	10,999	10,575	16	15	62	71
70 and under 80 cents	8,972	7,694	13	11	75	82
80 and under 90 cents	6,588	6,888	9	10	84	92
90 cents and under \$1	6,341	2,919	9	4	93	96
\$1 and under \$1.10	2,205	1,509	3	2	96	98
\$1.10 and under \$1.20	1,330	728	2	1	98	99
\$1.20 and under \$1.30	644	317	1	(1)	99	100
\$1.30 and under \$1.40	303	121	(1)	(1)	99	100
\$1.40 and under \$1.50	127	64	(1)	(1)	100	100
\$1.50 and under \$1.60	75	56	(1)	(1)	100	100
\$1.60 and under \$1.70	51	23	(1)	(1)	100	100
\$1.70 and under \$1.80	28	20	(1)	(1)	100	100
\$1.80 and under \$1.90	26	17	(1)	(1)	100	100
\$1.90 and under \$2	18	10	(1)	(1)	100	100
\$2 and under \$2.50	37	20	(1)	(1)	100	100
\$2.50 and under \$3	9	3	(1)	(1)	100	100
\$3 and over	7	4	(1)	(1)	100	100
Total	70,853	70,853	100	100		
<i>Miners, hand or pick</i>						
Under 30 cents	515	803	3	4	3	4
30 and under 40 cents	1,347	2,035	7	10	9	14
40 and under 50 cents	2,624	3,361	13	17	23	32
50 and under 60 cents	3,502	3,999	18	20	41	52
60 and under 70 cents	3,399	3,387	17	17	58	69
70 and under 80 cents	2,915	2,571	15	13	73	82
80 and under 90 cents	2,170	1,620	11	8	84	90
90 cents and under \$1	1,425	923	7	5	91	95
\$1 and under \$1.10	817	471	4	2	95	97
\$1.10 and under \$1.20	448	253	2	1	97	99
\$1.20 and under \$1.30	236	97	1	(1)	99	99
\$1.30 and under \$1.40	116	61	1	(1)	99	100

¹ Less than 1 per cent.

² More than 99.5 per cent.

TABLE 4.—NUMBER AND PER CENT OF LOADERS, HAND OR PICK MINERS, AND MACHINE MINERS (CUTTERS) WHOSE HOURLY EARNINGS WERE WITHIN EACH CLASSIFIED AMOUNT, 1920—Continued

Classified earnings per hour	Number		Per cent			
	Based on time at face, including lunch time	Based on time in mine	Actual		Cumulative	
			Based on time at face, including lunch time	Based on time in mine	Based on time at face, including lunch time	Based on time in mine
<i>Miners, hand or pick—Con.</i>						
\$1.40 and under \$1.50.....	55	36	(1)	(1)	¹ 100	² 100
\$1.50 and under \$1.60.....	42	16	(1)	(1)	¹ 100	² 100
\$1.60 and under \$1.70.....	16	9	(1)	(1)	¹ 100	² 100
\$1.70 and under \$1.80.....	13	6	(1)	(1)	¹ 100	² 100
\$1.80 and under \$1.90.....	5	5	(1)	(1)	¹ 100	² 100
\$1.90 and under \$2.....	5	5	(1)	(1)	¹ 100	² 100
\$2 and under \$2.50.....	13	7	(1)	(1)	¹ 100	² 100
\$2.50 and under \$3.....	2		(1)		¹ 100	² 100
\$3 and over.....	1	1	(1)	(1)	100	100
Total.....	19,666	19,666	100	100		
<i>Miners, machine (cutters)</i>						
Under 30 cents.....	23	34	(1)	1	(1)	1
30 and under 40 cents.....	44	72	1	1	1	2
40 and under 50 cents.....	121	192	2	3	3	5
50 and under 60 cents.....	321	446	5	8	9	13
60 and under 70 cents.....	457	547	8	9	16	22
70 and under 80 cents.....	589	762	10	13	26	35
80 and under 90 cents.....	679	733	11	12	38	47
90 cents and under \$1.....	676	645	11	11	49	58
\$1 and under \$1.10.....	614	714	10	12	59	70
\$1.10 and under \$1.20.....	832	666	14	11	73	81
\$1.20 and under \$1.30.....	439	340	7	6	81	87
\$1.30 and under \$1.40.....	314	292	5	5	86	92
\$1.40 and under \$1.50.....	292	175	5	3	91	95
\$1.50 and under \$1.60.....	179	102	3	2	94	96
\$1.60 and under \$1.70.....	123	50	2	1	96	97
\$1.70 and under \$1.80.....	48	36	1	1	97	98
\$1.80 and under \$1.90.....	37	37	1	1	97	98
\$1.90 and under \$2.....	36	34	1	1	98	99
\$2 and under \$2.50.....	93	50	2	1	¹ 100	² 100
\$2.50 and under \$3.....	14	6	(1)	(1)	¹ 100	² 100
\$3 and over.....	6	4	(1)	(1)	100	100
Total.....	5,937	5,937	100	100		

¹ Less than 1 per cent.² More than 99.5 per cent.

Table 5 shows the average number of starts (days on which employees worked) and the per cent of the 70,853 hand loaders, 19,666 hand or pick miners, and 5,937 machine miners (cutters) who worked each specified number of days during the half-month pay period covered by the study. "Starts" or "days" as used in this table, mean the number of calendar days or parts of days on which an employee did any work in the half month, regardless of the number of hours worked or on duty.

Practically every mine reported some employees in each of these three occupations as having worked less than the number of days the mine was in operation in the half month for which data were reported because of sickness or other disability, voluntary absence on one or more days, or in service only a part of the half month.

Owing to the fact that few companies regularly make a record of the hours of tonnage workers, it was not possible to obtain data from all companies for an identical half month. It should, therefore be borne in mind in studying the figures that the week days in the

different half months for which data are shown in this and other tables were 11, 12, 13, or 14.

In the half month, hand loaders worked an average of 8.9 days; hand or pick miners, 9.4 days; and machine miners (cutters), 10 days. The percentage distribution shows that 2 per cent of the hand loaders and 1 per cent of the miners worked on only 1 day in the half month, and that 22 per cent of the hand loaders, 18 per cent of the hand or pick miners, and 12 per cent of the machine miners worked on 6 days or less in the half month.

TABLE 5.—PER CENT OF LOADERS, HAND OR PICK MINERS, AND MACHINE MINERS, (CUTTERS), MAKING EACH SPECIFIED NUMBER OF STARTS (DAYS) IN HALF MONTH, 1929, BY OCCUPATIONS

Occupation	Number of mines	Number of employees	Average number of starts (days)	Per cent of employees whose starts (days on which they worked) in the half month were—															
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Loaders, hand.....	475	70,853	8.9	2	2	3	5	4	6	9	11	11	13	12	10	11	1	(1)	(1)
Miners:																			
Hand or pick.....	230	19,666	9.4	1	2	2	4	4	5	7	8	11	16	12	12	13	3	(1)	---
Machine (cutters).....	456	5,937	10.0	1	1	1	3	2	4	6	9	9	13	14	11	22	3	(1)	(1)

1 Less than 1 per cent.

Wages and Hours of Labor in Blast Furnaces and Bessemer Converters, 1929

THE Bureau of Labor Statistics of the Department of Labor has just completed the collection of data in a study of earnings and hours of labor in 10 departments of the iron and steel industry. The period covered by this survey was in nearly all instances the first half of March, 1929.

It was not possible to make a wage census of all establishments in the industry, but the data collected for each of the several departments were obtained from a sufficient number of selected plants in each district fairly to represent conditions in the several localities.

Similar studies have been made in this industry in earlier years. The last preceding study was made in 1926 when data were gathered as of the last half of January of that year and published in Bulletin 442. Whenever possible the 1929 data were obtained from the same establishments as were covered in 1926. In a few cases the departments of some establishments were not operating during the period desired or had ceased to be representative, and some substitutions had to be made in order to keep a representation for the district.

A summary tabulation of average full-time hours per week, average earnings per hour, and average full-time earnings per week, with index numbers computed therefrom, for all employees in all occupations in the blast-furnace and Bessemer converter departments for the years 1913 to 1929 have been completed and are presented herewith. Like summary figures for other departments will be published by the bureau as they are compiled. A complete report for all departments of this study will be published later in bulletin form. Data were obtained from 37 blast-furnace establishments employing 12,222 men and 11 Bessemer-converter establishments employing 2,251 men.

TABLE 1.—AVERAGE FULL-TIME HOURS PER WEEK, EARNINGS PER HOUR, AND FULL-TIME EARNINGS PER WEEK, WITH INDEX NUMBERS COMPUTED THEREFROM FOR ALL EMPLOYEES IN ALL OCCUPATIONS IN BLAST-FURNACE AND BESSEMER-CONVERTER DEPARTMENTS, 1913 TO 1929, BY YEARS

Department and year	Average—			Index numbers (1913=100)		
	Full-time hours per week	Earnings per hour	Full-time weekly earnings	Full-time hours per week	Earnings per hour	Full-time weekly earnings
Blast Furnaces:						
1913.....	76.9	\$0.205	\$15.76	100	100	100
1914.....	74.8	.206	15.41	97	100	98
1915.....	74.9	.207	15.50	97	101	98
1920.....	72.1	.571	41.17	94	279	261
1922.....	72.3	.398	28.78	94	194	183
1924.....	59.7	.520	31.04	78	254	197
1926.....	59.8	.517	30.92	78	252	196
1929.....	60.7	.528	32.05	79	258	203
Bessemer converters:						
1913.....	70.0	.284	19.88	100	100	100
1914.....	68.4	.255	17.44	98	90	88
1915.....	68.7	.264	18.14	98	93	91
1920.....	70.3	.677	47.59	100	238	239
1922.....	68.7	.470	32.29	98	165	162
1924.....	52.3	.624	32.64	75	220	164
1926.....	52.6	.641	33.72	75	226	170
1929.....	53.7	.643	34.53	77	226	174

As will be seen from Table 1 full-time hours of labor of blast furnaces increased from 59.8 hours in 1926 to 60.7 in 1929. The full-time hours per week in 1929 were, however, but 79 per cent of the full-time hours in 1913, as shown by the index numbers. In other words, the full-time hours per week in blast furnaces were reduced 21 per cent as compared with 1913. Average earnings per hour for all the employees covered in this industry increased from 51.7 cents in 1926 to 52.8 cents in 1929. The index number for earnings per hour in 1929 is 258, indicating that earnings per hour were more than two and one-half times as much in 1929 as in 1913. Full-time weekly earnings in blast furnaces increased from \$30.92 in 1926 to \$32.05 in 1929. The rate of increase of full-time weekly earnings was greater than that in earnings per hour because of the increase in full-time hours per week. The full-time weekly earnings in 1913 were \$15.76 and so full-time weekly earnings were more than twice as much in 1929 as in 1913, the index number being 203.

In the Bessemer-converter department full-time hours per week increased from 52.6 in 1926 to 53.7 in 1929. As shown by the index, full-time hours per week decreased 23 per cent as compared with 1913. The average earnings per hour in the Bessemer department were 64.3 cents in 1929 and 64.1 cents in 1926. The index number of earnings per hour for 1929 is 226, indicating that earnings per hour in 1929 were more than two and one-fourth times as much in that year as in 1913. Weekly earnings in the Bessemer department increased from \$33.72 in 1926 to \$34.53 in 1929. The index number computed from the figures in this column indicates that full-time weekly earnings were nearly one and three-fourths as much in 1929 as in 1913.

A comparison of earnings and hours in 1926 and 1929 for certain of the principal productive occupations in the two departments covered by this article is given in Table 2. Similar figures for earlier years may be found in Bulletin No. 442.

TABLE 2.—AVERAGE FULL-TIME HOURS PER WEEK, EARNINGS PER HOUR, AND FULL-TIME WEEKLY EARNINGS IN SELECTED OCCUPATIONS, 1926 AND 1929

Blast furnaces

Occupation	Year	Number of plants	Number of employees	Average full-time hours per week	Average earnings per hour	Average full-time weekly earnings	Per cent of employees whose average full-time hours per week were—							
							48 and under	Over 48 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84	
Stockers.....	1926	37	1, 174	60. 1	\$0. 465	\$27. 95	1	56	11	20	3	(1)	8	
	1929	37	877	62. 6	. 451	28. 23	(1)	52	5	26	4	1	12	
Bottom fillers.....	1926	4	344	53. 5	. 426	22. 79		100						
	1929	2	35	54. 3	. 629	34. 15		100						
Top fillers.....	1926	4	65	53. 8	. 500	26. 90		100						
	1929	2	17	54. 4	. 675	36. 72		100						
Larry men.....	1926	34	422	57. 9	. 551	31. 90		90			2		9	
	1929	36	412	58. 5	. 552	32. 29		86			3		10	
Larry men's helpers.....	1926	26	389	56. 9	. 493	28. 05		93			2		5	
	1929	24	278	57. 5	. 495	28. 46		92			4		4	
Skip operators.....	1926	32	267	58. 4	. 545	31. 83		86			3		10	
	1929	31	243	58. 5	. 547	32. 00		86			3		11	
Blowers.....	1926	37	241	58. 5	. 902	52. 77		80	2	5	5		8	
	1929	37	226	58. 7	. 918	53. 89		83		1	8		8	
Blowing engineers.....	1926	37	197	59. 5	. 658	39. 15		83			3		15	
	1929	37	180	59. 7	. 683	40. 78		82			4		13	
Blowing engineers, asst.....	1926	29	231	56. 6	. 579	32. 77		92			2		6	
	1929	25	189	56. 2	. 613	34. 45		94			3		3	
Stove tenders.....	1926	37	362	57. 5	. 548	31. 51		90			2		7	
	1929	36	347	57. 7	. 557	32. 14		90			3		7	
Keepers.....	1926	37	380	57. 4	. 577	33. 12		91			2		7	
	1929	37	350	57. 7	. 579	33. 41		89			3		8	
Keepers' helpers.....	1926	37	1, 516	59. 1	. 471	27. 84		81	(1)	2	3	1	12	
	1929	37	1, 142	59. 5	. 486	28. 92		83			4	(1)	13	
Iron handlers and loaders.....	1926	7	181	69. 2	. 349	24. 15			36	45			19	
	1929	5	55	73. 2	. 374	27. 38		13	18		38		31	
Pig-machine men.....	1926	29	506	59. 4	. 501	29. 76		84	(1)	1			14	
	1929	29	377	61. 7	. 494	30. 48		66	12	2	3		18	
Cinder men.....	1926	22	183	59. 2	. 484	28. 65	4	51	21	22			2	
	1929	20	108	62. 5	. 486	30. 38		47	19	25	1		8	
Laborers.....	1926	36	1, 600	62. 4	. 389	24. 34	(1)	15	50	33			2	
	1929	36	1, 184	63. 8	. 373	23. 80	(1)	22	34	39	(1)		5	

Bessemer converters

Stockers.....	1926	10	317	48.3	\$0.638	\$30.82	89	3	6	2			
	1929	10	156	50.7	.628	31.84	68	12	17	3			
Cupola melters.....	1926	4	10	49.2	.888	43.69	40	60					
	1929	1	4	40.0	.845	33.80	100						
Cupola tappers.....	1926	5	21	49.3	.762	37.57	28	71					
	1929	1	3	48.0	.661	31.73	100						
Blowers.....	1926	11	31	49.7	1.351	67.14	74	19		6			
	1929	11	27	50.7	1.301	65.96	74	11	7	7			
Regulators, first.....	1926	10	28	51.8	.949	49.16	43	43	7	7			
	1929	10	25	53.5	.910	48.69	20	56	16	8			
Regulators, second.....	1926	8	31	48.9	.945	46.21	81	19					
	1929	8	27	49.7	.946	47.02	52	48					
Vesselmen.....	1926	11	29	51.8	1.271	65.84	14	79		7			
	1929	11	28	52.5	1.212	63.63	21	61		18			
Vesselmen's helpers.....	1926	11	59	50.9	.897	45.66	41	56		3			
	1929	11	57	51.0	.900	45.90	39	54	4	4			
Cinder pitmen.....	1926	11	122	51.4	.543	27.91	59	17	11	13			
	1929	11	108	52.6	.557	29.30	61	14	14	11			
Bottom makers.....	1926	11	27	51.3	.826	42.37	70		26	4			
	1929	11	23	53.5	.713	38.15	43	17	35	4			
Bottom makers' helpers.....	1926	11	44	52.3	.647	33.84	50	14	34	2			
	1929	11	37	55.0	.590	32.45	38	8	49	5			
Ladle liners.....	1926	11	31	50.6	.893	45.19	61	29	10				
	1929	11	34	51.6	.818	42.21	59	21	15	6			
Ladle liners' helpers.....	1926	10	54	51.2	.631	32.31	70	13	6	11			
	1929	11	37	51.8	.633	32.79	65	14	14	8			
Stopper makers.....	1926	11	12	56.6	.594	33.62	33		58	8			
	1929	11	12	59.3	.583	34.57	17	8	58	17			
Stopper setters.....	1926	11	40	49.5	1.014	50.19	75	18		8			
	1929	11	33	50.4	1.036	52.21	76	9	9	6			
Steel pourers.....	1926	9	27	48.0	1.210	58.08	93	7					
	1929	9	26	49.0	1.162	56.94	88		12				
Mold cappers.....	1926	7	33	47.7	.782	37.30	100						
	1929	8	33	51.7	.708	36.60	52	27	9	12			
Ingot strippers.....	1926	8	26	50.0	.801	40.05	54	47					
	1929	7	21	53.0	.844	44.73	43	43	14				
Laborers.....	1926	11	201	59.4	.443	26.31	18	(1)	57	25			
	1929	11	196	57.6	.452	26.04	29	11	35	25			

¹ Less than 1 per cent.² Including less than 1 per cent whose full-time hours were 91.

It will be observed that each of the 16 blast-furnace occupations, save one, appearing in Table 2 had an increase in customary full-time hours per week and that 13 of the 16 occupations had an increase in earnings per hour. Two occupations on their face show large increases in hourly earnings, namely, bottom fillers and top fillers. These two occupations are disappearing because of the change in plant equipment.

These changes in average hourly earnings were brought about by the eliminating of 2 southern plants which were not operating during the 1929 study and which were included in the 1926 study. This condition reduced the number of bottom fillers to 35 in 1929 as compared with 344 in 1926. Top fillers were reduced in number from 65 in 1926 to 17 in 1929. The comparison of average hourly earnings for these two occupations is of minor importance, however, as they bear little influence on the sum total of all employees, but it does show how the change in geographical location of plants included in a study may effect the averages therein. It may be stated here that any average might be changed by a shift in the relative number of persons employed at different rates even though no individual person had a change in his rate.

Average full-time weekly earnings increased in all occupations except laborers, which shows a decrease from \$24.34 in 1926 to \$23.80 in 1929. The average full-time weekly earnings ranged from \$23.80 for laborers to \$53.89 for blowers.

In the Bessemer department 16 of the 19 selected occupations appearing in Table 2 had an increase in full-time hours per week. In 12 of the 19 selected occupations there was a decrease in earnings per hour, yet as before stated there was an increase in hourly earnings for the department as a whole. This is due to the fact that these principal productive occupations constituted but 39 per cent of all the employees in the department and that the remaining 61 per cent of all employees as a combined group had an increase in their hourly earnings more than sufficient to outweigh the downward trend in the majority of the selected occupations.

Average full-time weekly earnings in the Bessemer department in 1929 as compared with 1926 show increases in 8 occupations and decreases in 11. The largest increase in average full-time weekly earnings is in the occupation of ingot strippers which is caused by increases in both the average full-time hours per week and average earnings per hour. The smallest increase is found in the occupation of vesselmen's helpers whose earnings increased from \$45.66 in 1926 to \$45.90 in 1929. This slight increase in average weekly earnings was caused by minor increases in both average earnings per hour and average hours per week. The largest decrease in average full-time weekly earnings is found in the occupation of cupola melters whose earnings decreased from \$43.69 in 1926 to \$33.80 in 1929. This change was brought about mainly through the radical change in the number of reporting plants for the occupation as between 1926 and 1929.

Change in Numbers Employed

IN THE 1926 study the 37 blast-furnace establishments from which data were secured employed a total of 15,329 men. This is an increase of 3,107, or 20 per cent more than the 12,222 that were employed in

the 37 blast-furnace establishments covered in the 1929 study. Of the 37 establishments covered in both years 32 were identical, and it is interesting to note the changes in volume of employment between the two periods in these 32 identical establishments.

During the period covered by the 1926 study these 32 establishments operated a total of 114 stacks and employed a total of 13,888 men, an average of 122 men per stack operated. During the period covered by the 1929 study they operated a total of 108 stacks and employed a total of 11,095 men, an average of 103 men per stack operated. In 1926 the average hours actually worked by employees in all occupations in these establishments were 114.8 in a 16-day pay period as compared with 113.0 in a 15-day period in 1929. When allowance is made for the difference in length of pay-roll period as between the two years it will be found that the average hours worked in 1929 are somewhat higher than those in 1926.

The greatest percentage of reduction in total number of employees as between the two years took place in the plants located in the Southern district. Those in the Pittsburgh district were second, Eastern district third, and the Great Lakes and Middle West district last.

Much of this labor elimination has been brought about by the installation of the pig-machine; the use of modern auxiliary equipment, such as power cranes, both locomotive and electric; new methods of handling ore, both at the bins and in charging it into the furnace; and the elimination or combination of certain classes of work. Some of the occupations most affected by the elimination of jobs were laborers, keepers' helpers, stockers, iron handlers and loaders, and cindermen. The first three occupations named were reduced in number approximately 25 per cent each.

The effect on productivity in merchant blast furnaces of labor-saving economies put into effect over the period 1911 to 1927, together with other relative data, may be found in Bulletin No. 474 of the United States Bureau of Labor Statistics which has lately been published.

The 11 Bessemer-converter establishments covered in this study are identical with those covered in the 1926 study. The 1929 study covers 2,251 employees in all occupations, which is approximately 24 per cent less than the 2,948 employees covered in the 1926 study. This reduction in number of employees is mainly due to the fact that in 1926 there were five establishments operating their cupolas, while in 1929 only two plants were operating the Bessemer cupolas. An increasing amount of hot metal is being charged, and the effect of this change is clearly seen in the occupation of stockers where the number of employees decreased from 317 in 1926 to 156 in 1929. Other occupations connected with the cupolas for which separate figures are not presented were similarly affected. Further, there has been some reduction in the number of employees in other occupations not affected by the non-operation of the cupolas. The increasing amount of duplexing being done has also tended to reduce the number of employees required to handle the output of the vessels, as the steel is not cast but goes to the open-hearth furnace.

Of the 19 occupations for which separate figures are presented only 1, that of ladle liners, shows an increase in number of employees in 1929 as compared with 1926. The total number of employees in the

19 selected occupations is 887, which is nearly 23 per cent less than the 1,143 employees in these same occupations in 1926.

Union Scales of Wages and Hours of Labor, 1913 to 1929: Preliminary Report

THE Bureau of Labor Statistics has collected, as of May 15, 1929, information concerning the union scales of wages and hours of labor in the principal time-work trades in 67 of the leading cities of the United States. A full compilation of the figures is now in progress and will be published as a bulletin of the bureau.

In this article an abridged compilation is made of the 1929 data including certain important trades in 40 localities with comparative figures for all but four of the preceding years back to 1913, in so far as effective scales were found for the several years. Data for 1914, 1915, 1916, and 1917 are omitted for lack of space, but figures for those years may be obtained by referring to the September, 1925, issue of the Labor Review.

The trades here covered are:

Bricklayers.
Building laborers.
Carpenters.
Cement finishers.
Compositors: Book and job.
Compositors, daywork: Newspaper.
Electrotypers: Finishers.
Electrotypers: Molders.
Granite cutters, inside.
Hod carriers.
Inside wiremen.

Painters.
Plasterers.
Plasterers' laborers.
Plumbers.
Sheet-metal workers.
Stonecutters.
Structural-iron workers.
Typesetting-machine operators: Book and job.
Typesetting-machine operators, daywork: Newspaper.

The union scale represents the minimum rate and the maximum hours agreed upon between the unions and the employers. Quite often, however, a higher rate was paid to some of the union members. Variable higher rates were paid to many or possibly all of the members in some of the occupations in a few cities.

The union scale generally represents the prevailing rate for the trade in the locality, even though all persons in the trade may not be members of the union.

In cases where scales have been revised since May 15, 1929, and made retroactive to that date or earlier the changes have been included in the tabulation, in so far as information has been received.

Two or more quotations of rates and hours are shown for some occupations in some cities. Such quotations indicate that there were two or more agreements with different employers and possibly made also by different unions, or for subclassifications of a specific occupation, such as building laborers.

Bricklayers

WAGES AND HOURS OF LABOR

145

City	Rates per hour (cents)												Hours per week													
	1913	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	
Atlanta.....	45.0	60.0	70.0	112.5	100.0	100.0	112.5	112.5	112.5	140.0	140.0	140.0	125.0	53	50	44	44	44	44	44	44	44	44	44	44	44
Baltimore.....	62.5	75.0	100.0	125.0	125.0	125.0	150.0	150.0	150.0	162.5	162.5	162.5	162.5	45	44	45	45	45	45	44	44	44	44	44	44	40
Birmingham.....	70.0	87.5	87.5	100.0	100.0	100.0	112.5	125.0	137.5	150.0	150.0	150.0	150.0	8	44	44	44	44	44	44	44	44	44	44	44	44
Boston.....	65.0	80.0	80.0	100.0	100.0	100.0	125.0	125.0	125.0	140.0	140.0	140.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Buffalo.....	65.0	75.0	85.0	100.0	100.0	100.0	125.0	125.0	137.5	137.5	150.0	150.0	150.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Charleston, S. C.....	40.0	50.6	75.0	100.0	85.0	85.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	53	48	48	48	48	48	48	48	48	48	48	44	44
Chicago.....	75.0	75.0	87.5	125.0	125.0	110.0	110.0	125.0	150.0	150.0	162.5	162.5	162.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Cincinnati.....	65.0	90.0	90.0	125.0	125.0	125.0	150.0	150.0	150.0	162.5	162.5	162.5	162.5	45	45	45	45	45	45	45	45	44	44	44	44	44
Cleveland.....	65.0	90.0	90.0	125.0	125.0	125.0	140.0	150.0	150.0	150.0	160.0	160.0	162.5	48	44	44	44	44	44	44	44	44	44	44	44	44
Dallas.....	87.5	100.0	100.0	112.5	150.0	137.5	150.5	150.0	150.0	162.5	162.5	162.5	162.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Denver.....	75.0	100.0	100.0	125.0	125.0	125.0	137.5	150.0	150.0	150.0	150.0	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Detroit.....	65.0	80.0	90.0	125.0	100.0	100.0	135.0	150.0	150.0	150.0	157.5	157.5	157.5	11	44	44	44	44	44	44	44	44	44	44	44	44
Fall River.....	55.0	75.0	85.0	115.0	115.0	95.0	110.0	110.0	125.0	125.0	125.0	125.0	125.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Indianapolis.....	75.0	85.0	85.0	125.0	115.0	115.0	135.0	150.0	150.0	150.0	162.5	162.5	162.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Jacksonville.....	62.5	62.5	75.0	87.5	100.0	87.5	87.5	100.0	125.0	150.0	150.0	150.0	125.0	48	48	44	44	44	44	44	44	44	44	44	44	44
Kansas City, Mo.....	75.0	87.5	100.0	112.5	112.5	112.5	137.5	150.0	150.0	150.0	150.0	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Little Rock.....	75.0	87.5	100.0	125.0	125.0	125.0	125.0	137.5	150.0	150.0	150.0	150.0	150.0	14	44	44	44	44	44	44	44	44	44	44	44	44
Los Angeles.....	75.0	87.5	100.0	125.0	125.0	125.0	125.0	125.0	137.5	137.5	137.5	137.5	137.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Louisville.....	65.0	75.0	85.0	115.0	125.0	125.0	125.0	150.0	150.0	150.0	150.0	150.0	150.0	48	44	44	44	44	44	44	44	44	44	44	44	40
Manchester.....	55.0	75.0	90.0	112.5	112.5	112.5	112.5	150.0	137.5	137.5	137.5	137.5	150.0	48	44	44	44	44	44	44	44	44	44	44	44	40
Memphis.....	75.0	87.5	87.5	125.0	112.5	112.5	125.0	150.0	150.0	162.5	162.5	162.5	162.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Milwaukee.....	67.5	72.5	90.0	125.0	100.0	100.0	125.0	125.0	125.0	125.0	140.0	140.0	140.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Minneapolis.....	65.0	75.0	87.5	125.0	100.0	100.0	125.0	125.0	125.0	125.0	137.5	137.5	137.5	48	44	44	44	44	44	44	44	44	44	44	44	44
Newark, N. J.....	65.0	75.0	87.5	125.0	125.0	125.0	125.0	150.0	150.0	162.5	175.0	175.0	175.0	44	44	44	44	44	44	44	44	44	44	44	44	44
New Haven.....	60.0	70.0	82.5	100.0	100.0	100.0	112.5	125.0	125.0	137.5	137.5	137.5	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44
New Orleans.....	62.5	62.5	75.0	100.0	100.0	100.0	100.0	125.0	125.0	125.0	125.0	125.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44
New York.....	70.0	81.3	87.5	125.0	125.0	125.0	150.0	150.0	150.0	175.0	175.0	175.0	187.5	44	44	44	44	44	44	44	44	44	44	44	44	40
Omaha.....	70.0	75.0	87.5	125.0	112.5	100.0	125.0	125.0	125.0	125.0	137.5	137.5	150.0	44	44	44	44	44	44	44	44	44	44	44	44	40
Philadelphia.....	62.5	80.0	80.0	130.0	130.0	125.0	137.5	150.0	150.0	162.5	162.5	162.5	162.5	44	44	44	44	44	44	44	44	44	44	44	44	40
Pittsburgh.....	70.0	75.0	90.0	112.5	150.0	130.0	130.0	140.0	155.0	162.5	162.5	162.5	170.0	44	44	44	44	44	44	44	44	44	44	44	44	44

† 40 hours per week, June to August, inclusive.
 ‡ 44 1/2 hours per week, November to March, inclusive.
 § 48 hours per week, October to December, inclusive.

† 48 hours per week, Nov. 16 to Mar. 15.
 ‡ 44 hours per week, October to April, inclusive.
 § 48 hours per week, December to February, inclusive.

† 48 hours per week, Nov. 16 to Mar. 15.
 ‡ 44 hours per week, October to April, inclusive.
 § 48 hours per week, December to February, inclusive.

UNION SCALES OF WAGES AND HOURS OF LABOR IN SPECIFIED OCCUPATIONS, 1913 TO 1929, BY CITIES—Continued

Bricklayers—Continued

City	Rates per hour (cents)										Hours per week						
	1913	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1928	1927	1926	1925
Portland, Oreg.	75.0	87.5	100.0	125.0	125.0	112.5	125.0	125.0	137.5	137.5	137.5	150.0	150.0	44	44	44	44
Providence.....	65.0	70.0	80.0	115.0	115.0	115.0	115.0	125.0	150.0	150.0	150.0	150.0	150.0	44	44	44	44
Richmond, Va.	65.0	76.0	87.5	100.0	100.0	100.0	150.0	125.0	150.0	150.0	150.0	150.0	150.0	44	44	44	44
St. Louis.....	70.0	85.0	100.0	125.0	125.0	125.0	150.0	175.0	175.0	175.0	175.0	175.0	175.0	44	44	44	44
St. Paul.....	65.0	75.0	87.5	125.0	112.5	100.0	100.0	112.5	112.5	125.0	125.0	125.0	125.0	44	44	44	44
Salt Lake City.	75.0	87.5	100.0	125.0	112.5	112.5	125.0	137.5	137.5	137.5	137.5	137.5	137.5	44	44	44	44
San Francisco.	87.5	100.0	112.5	125.0	125.0	125.0	137.5	137.5	137.5	137.5	137.5	137.5	137.5	44	44	44	44
Scranton.....	60.0	75.0	75.0	112.5	125.0	125.0	137.5	180.0	150.0	150.0	150.0	150.0	150.0	44	44	44	44
Seattle.....	75.0	100.0	112.5	125.0	112.5	112.5	125.0	137.5	137.5	137.5	145.0	150.0	150.0	44	44	44	44
Washington....	62.5	75.0	87.5	100.0	125.0	137.5	137.5	150.0	162.5	162.5	162.5	162.5	162.5	44	44	44	44

Building laborers

Boston.....	35.0	40.0	40.0	67.5	67.5	67.5	67.5	67.5	65.0	74.0	74.0	74.0	80.0	48	48	48	48
Chicago.....	40.0	50.0	57.5	100.0	100.0	72.5	72.5	72.5	82.5	87.5	87.5	87.5	90.0	44	44	44	44
Cincinnati.....	20.0	35.0	40.0	45.0	50.0	40.0	45.0	52.5	55.0	58.0	60.0	60.0	60.0	50	50	50	50
Cleveland.....	55.0	57.5	57.5	87.5	87.5	57.5	87.5	87.5	87.5	87.5	87.5	87.5	87.5	44	44	44	44
Detroit.....	55.0	65.0	65.0	75.0	60.0	50.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	44	44	44	44
Kansas City, Mo.	27.5	37.5	57.5	75.0	75.0	70.0	70.0	75.0	75.0	75.0	75.0	75.0	75.0	44	44	44	44
Los Angeles....	34.4	43.8	50.0	62.5	62.5	62.5	62.5	62.5	62.5	75.0	75.0	75.0	75.0	44	44	44	44
Louisville.....	27.9	30.0	35.0	50.0	40.0	40.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	44	44	44	44
Milwaukee.....	27.9	30.0	35.0	65.0	65.0	55.0	60.0	75.0	75.0	75.0	75.0	75.0	75.0	44	44	44	44
Minneapolis....	27.9	30.0	35.0	65.0	65.0	55.0	60.0	75.0	75.0	75.0	75.0	75.0	75.0	44	44	44	44
New York.....	22.5	40.5	40.5	75.0	81.3	81.3	81.3	81.3	81.3	105.0	105.0	115.0	120.0	44	44	44	44
Newark, N. J.	22.5	40.5	40.5	75.0	81.3	81.3	81.3	81.3	81.3	105.0	105.0	115.0	120.0	44	44	44	44
New Haven.....	22.5	40.5	40.5	75.0	81.3	81.3	81.3	81.3	81.3	105.0	105.0	115.0	120.0	44	44	44	44
Philadelphia....	22.5	40.5	40.5	75.0	81.3	81.3	81.3	81.3	81.3	105.0	105.0	115.0	120.0	44	44	44	44

Pittsburgh.....	25.0	45.0	45.0	70.0	100.0	80.0	100.0	70.0	70.0	80.0	112.5	112.5	54	44	44	44	44	44	44
Portland, Oreg.....	37.5	50.0	62.5	75.0	67.5	67.5	67.5	67.5	67.5	67.5	68.8	68.8	48	44	44	44	44	44	44
St. Louis.....	25.0	33.3	40.3	54.0	54.0	57.5	57.5	75.0	75.0	75.0	75.0	75.0	44	44	44	44	44	44	44
St. Paul.....	---	---	---	---	50.0	55.0	55.0	55.0	55.0	55.0	55.0	55.0	49½	49½	44	44	44	44	44
San Francisco.....	27.8	43.8	62.5	75.0	62.5	62.5	62.5	62.5	62.5	62.5	68.8	68.8	54	44	44	48	48	48	44
Scranton.....	25.0	30.0	50.0	58.5	60.0	60.0	60.0	70.0	70.0	70.0	70.0	70.0	54	48	48	48	48	48	48
Seattle.....	37.5	56.3	68.8	75.0	62.5	62.5	62.5	62.5	62.5	62.5	70.0	70.0	44	44	44	44	44	44	44

Carpenters

Atlanta.....	40.0	50.0	60.0	80.0	70.0	70.0	70.0	80.0	80.0	80.0	80.0	80.0	50	44	44	44	44	44	44
Baltimore.....	43.8	62.5	80.0	90.0	90.0	90.0	90.0	110.0	110.0	110.0	110.0	110.0	48	44	44	44	44	44	44
Birmingham.....	52.5	55.0	65.0	75.0	75.0	75.0	75.0	95.0	95.0	100.0	100.0	100.0	48	44	44	44	44	44	44
Boston.....	50.0	65.0	75.0	100.0	100.0	100.0	100.0	110.0	110.0	125.0	125.0	125.0	48	44	44	44	44	44	44
Buffalo.....	50.0	70.0	70.0	100.0	100.0	87.5	87.5	112.5	112.5	112.5	112.5	112.5	48	44	44	44	44	44	44
Charleston, S. C.....	33.3	37.5	70.0	80.0	80.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	53	48	48	48	48	48	44
Chicago.....	65.0	70.0	80.0	125.0	125.0	110.0	125.0	137.5	137.5	150.0	150.0	150.0	44	44	44	44	44	44	44
Cincinnati.....	50.0	65.0	70.0	100.0	100.0	95.0	105.0	115.0	125.0	135.0	137.5	137.5	44½	44½	44½	44½	44½	44½	44½
Cleveland.....	50.0	80.0	85.0	125.0	125.0	104.0	125.0	125.0	125.0	125.0	137.5	137.5	44	44	44	44	44	44	44
Dallas.....	55.0	62.5	87.5	100.0	100.0	100.0	100.0	112.5	112.5	112.5	112.5	112.5	44	44	44	44	44	44	44
Denver.....	60.0	75.0	87.5	112.5	112.5	100.0	112.5	112.5	112.5	125.0	125.0	125.0	44	44	44	44	44	44	40
Detroit.....	50.0	60.0	80.0	100.0	115.0	85.0	115.0	115.0	115.0	115.0	115.0	115.0	48	44	44	44	44	44	44
Fall River.....	42.0	62.5	75.0	100.0	100.0	85.0	95.0	95.0	95.0	100.0	100.0	100.0	44	44	44	44	44	44	44
Indianapolis.....	50.0	60.0	75.0	100.0	92.5	92.5	92.5	110.0	110.0	110.0	122.5	122.5	44½	44½	44½	44½	44½	44½	44½
Jacksonville.....	31.3	40.0	65.0	80.0	80.0	80.0	80.0	100.0	100.0	100.0	80.0	80.0	48	44	44	44	44	44	44
Kansas City, Mo.....	55.0	65.0	85.0	100.0	100.0	100.0	100.0	112.5	112.5	125.0	125.0	125.0	44	44	44	44	44	44	44
Little Rock.....	50.0	60.0	80.0	92.5	80.0	80.0	80.0	90.0	90.0	100.0	100.0	100.0	48	44	44	44	44	44	44
Los Angeles.....	50.0	62.5	75.0	87.5	100.0	100.0	112.5	112.5	112.5	100.0	100.0	100.0	48	44	44	44	44	44	44
Louisville.....	45.0	60.0	60.0	80.0	80.0	80.0	100.0	100.0	100.0	100.0	100.0	100.0	44	44	44	44	44	44	44
Manchester.....	40.0	60.0	60.0	100.0	90.0	90.0	90.0	100.0	100.0	100.0	100.0	100.0	48	44	44	44	44	44	44

¹⁷ 44½ hours per week, October to April, inclusive.
¹⁸ Old scale; strike pending.

¹⁹ 48 hours per week, September to April, inclusive.
²⁰ 44½ hours per week, December to February, inclusive.

UNION SCALES OF WAGES AND HOURS OF LABOR IN SPECIFIED OCCUPATIONS, 1913 TO 1929, BY CITIES—Continued

Carpenters—Continued

City	Rates per hour (cents)												Hours per week													
	1913	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1913	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929
Memphis	50.0	65.0	75.0	100.0	75.0	75.0	75.0	87.5	100.0	100.0	100.0	100.0	100.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Milwaukee	50.0	56.3	70.0	100.0	85.0	85.0	95.0	100.0	100.0	100.0	100.0	100.0	110.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Minneapolis	50.0	60.0	75.0	100.0	100.0	80.0	80.0	90.0	100.0	100.0	100.0	100.0	100.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Newark, N. J.	50.0	70.0	80.0	100.0	100.0	112.5	112.5	131.3	137.5	140.0	140.0	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44
New Haven	47.5	56.0	65.0	100.0	100.0	90.0	90.0	100.0	100.0	100.0	112.5	112.5	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
New Orleans	40.0	50.0	60.0	75.0	100.0	100.0	90.0	90.0	90.0	90.0	90.0	90.0	50.0	48	48	43	48	44	44	44	44	44	44	44	44	44
New York	62.5	68.8	75.0	112.5	112.5	112.5	112.5	131.3	131.3	150.0	150.0	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Omaha	50.0	60.0	75.0	112.5	101.3	90.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Philadelphia	50.0	70.0	80.0	112.5	112.5	90.0	112.5	112.5	112.5	125.0	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Pittsburgh	55.0	71.0	80.0	90.0	125.0	100.0	120.0	137.5	137.5	150.0	150.0	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Portland, Oreg.	50.0	75.0	86.0	100.0	90.0	90.0	100.0	100.0	100.0	100.0	112.5	112.5	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Providence	50.0	60.0	70.0	100.0	100.0	85.0	90.0	100.0	110.0	110.0	110.0	117.5	117.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Richmond, Va.	37.5	62.5	62.5	72.5	72.5	72.5	80.0	90.0	90.0	90.0	90.0	90.0	90.0	48	48	48	47	47	47	47	47	47	47	47	47	44
St. Louis	62.5	70.0	82.5	100.0	125.0	110.0	125.0	150.0	150.0	150.0	150.0	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	40	44
St. Paul	50.0	60.0	75.0	100.0	100.0	80.0	80.0	90.0	100.0	100.0	100.0	100.0	100.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Salt Lake City	62.5	70.0	100.0	112.5	100.0	90.0	100.0	106.3	106.3	106.3	106.3	106.3	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44
San Francisco	62.5	75.0	87.5	106.3	112.5	104.4	104.4	104.4	104.4	112.5	112.5	112.5	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Scranton	42.5	60.0	70.0	87.5	87.5	87.5	93.8	112.5	112.5	112.5	125.0	125.0	125.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Seattle	56.3	82.5	93.8	100.0	87.5	87.5	100.0	100.0	112.5	112.5	112.5	112.5	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Washington	50.0	62.5	87.5	96.0	105.0	105.0	112.5	112.5	112.5	112.5	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44

Cement finishers

Atlanta	62.5	75.0	80.0	125.0	125.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Baltimore	62.5	75.0	75.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Birmingham	50.0	62.5	75.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Boston	62.5	70.0	75.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Buffalo	50.0	65.0	65.0	100.0	100.0	85.0	100.0	100.0	112.5	112.5	112.5	112.5	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Chicago	65.0	75.0	80.0	125.0	125.0	110.0	110.0	125.0	125.0	137.5	150.0	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Cincinnati	50.0	57.5	60.0	90.0	90.0	87.5	97.5	107.5	117.5	123.8	127.5	130.0	130.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Cleveland	60.0	77.5	80.0	90.0	125.0	104.0	125.0	125.0	125.0	125.0	125.0	137.5	137.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Dallas	50.0	62.5	87.5	100.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	48	48	48	48	48	48	48	48	48	48	48	48	48

UNION SCALES OF WAGES AND HOURS OF LABOR IN SPECIFIED OCCUPATIONS, 1913 TO 1929, BY CITIES—Continued

Compositors: Book and job—Continued

City	Rates per hour (cents)										Hours per week																
	1913	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1913	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	
Charleston, S. C.	33.3	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	48	48	48	48	48	44	44	44	44	44	44	44	44	44
Chicago	46.9	57.3	75.0	95.8	106.0	106.0	110.0	115.9	115.9	115.9	122.7	122.7	122.7	48	48	48	48	48	44	44	44	44	44	44	44	44	44
Cincinnati	40.6	46.9	51.0	75.0	104.5	104.5	104.5	109.1	109.1	109.1	113.6	113.6	115.9	48	48	48	48	48	44	44	44	44	44	44	44	44	44
Cleveland	39.6	50.0	62.5	87.5	93.8	93.8	93.8	100.0	104.5	106.8	109.1	109.1	111.4	48	48	48	48	48	44	44	44	44	44	44	44	44	44
Dallas	52.1	57.3	70.8	88.5	100.0	93.2	93.2	93.2	93.2	93.2	93.2	93.2	100.0	48	48	48	48	48	44	44	44	44	44	44	44	44	44
Denver	54.2	50.4	65.6	81.3	81.3	95.5	95.5	95.5	102.3	102.3	102.3	102.3	102.3	48	48	48	48	48	44	44	44	44	44	44	44	44	44
Detroit	38.5	54.7	72.9	92.7	96.9	105.0	105.0	105.0	105.0	110.0	115.0	120.0	122.0	48	48	48	48	48	44	44	44	44	44	44	44	44	44
Fall River	33.3	39.6	41.7	62.5	72.7	72.7	72.7	81.8	81.8	81.8	81.8	81.8	81.8	48	48	48	48	48	44	44	44	44	44	44	44	44	44
Indianapolis	43.8	52.1	54.2	75.0	100.0	92.7	95.5	95.5	98.0	100.0	102.3	104.5	106.8	48	48	48	48	48	44	44	44	44	44	44	44	44	44
Jacksonville	37.5	43.8	52.1	75.0	81.8	81.8	81.8	81.8	81.8	81.8	98.9	98.9	98.9	48	48	48	48	48	44	44	44	44	44	44	44	44	44
Kansas City, Mo.	41.7	50.0	54.2	72.9	84.4	84.4	88.6	92.0	94.3	96.6	98.9	100.0	102.3	48	48	48	48	48	48	44	44	44	44	44	44	44	44
Little Rock	37.5	43.8	43.8	72.9	72.9	70.0	70.0	70.0	85.2	96.6	96.6	92.2	92.0	48	48	48	48	48	44	44	44	44	44	44	44	44	44
Los Angeles	46.9	52.1	58.3	75.0	95.5	95.5	95.5	102.3	102.3	102.3	106.8	106.8	106.8	48	48	48	48	48	44	44	44	44	44	44	44	44	44
Louisville	37.5	43.8	45.8	45.8	79.2	79.0	79.0	79.0	79.5	79.5	79.5	79.5	86.4	48	48	48	48	48	44	44	44	44	44	44	44	44	44
Manchester	35.4	39.6	41.7	66.7	77.3	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	48	48	48	48	48	44	44	44	44	44	44	44	44	44
Memphis	40.0	48.1	55.4	93.8	93.8	82.3	82.3	82.3	80.0	80.0	81.8	81.8	81.8	48	48	48	48	48	44	44	44	44	44	44	44	44	44
Milwaukee	41.7	47.9	54.2	72.9	85.4	93.2	93.2	93.2	93.2	95.5	100.0	102.3	102.3	48	48	48	48	48	44	44	44	44	44	44	44	44	44
Minneapolis	43.8	45.8	54.0	87.5	87.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	48	48	48	48	48	44	44	44	44	44	44	44	44	44
Newark, N. J.	47.9	56.3	72.9	91.7	111.4	102.3	109.1	115.9	115.9	118.2	120.5	122.7	125.0	48	48	48	48	48	44	44	44	44	44	44	44	44	44
New Haven	40.6	44.8	45.8	58.3	58.3	86.4	86.4	86.4	86.4	86.4	86.4	86.4	86.4	48	48	48	48	48	44	44	44	44	44	44	44	44	44
New Orleans	43.8	43.8	50.0	71.9	71.9	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	48	48	48	48	48	44	44	44	44	44	44	44	44	44
New York	50.0	58.3	75.0	93.8	113.6	113.6	113.6	120.5	120.5	122.7	125.0	127.3	129.5	48	48	48	48	48	44	44	44	44	44	44	44	44	44
Omaha	37.5	53.1	68.8	87.5	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2	48	48	48	48	48	44	44	44	44	44	44	44	44	44
Philadelphia	39.6	50.0	60.4	89.6	89.6	89.6	89.6	89.6	90.0	90.0	90.0	90.0	90.0	48	48	48	48	48	44	44	44	44	44	44	44	44	44
Pittsburgh	39.6	47.9	60.4	81.3	100.0	100.0	100.0	100.0	100.0	100.0	104.5	104.5	104.5	48	48	48	48	48	44	44	44	44	44	44	44	44	44
Portland, Oreg.	53.1	59.4	75.0	85.4	95.8	95.8	95.8	90.9	90.9	102.3	105.7	105.7	105.7	48	48	48	48	48	44	44	44	44	44	44	44	44	44
Providence	37.5	45.8	50.0	72.9	72.9	79.5	79.5	90.9	90.9	90.9	90.9	90.9	90.9	48	48	48	48	48	44	44	44	44	44	44	44	44	44
St. Louis	43.8	52.7	52.7	79.2	92.8	92.8	92.8	98.0	98.0	98.0	103.0	103.0	103.0	48	48	48	48	48	44	44	44	44	44	44	44	44	44
St. Paul	43.8	45.8	54.0	83.3	87.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	48	48	48	48	48	44	44	44	44	44	44	44	44	44
San Francisco	50.0	58.3	62.5	81.3	104.5	104.5	104.5	104.5	115.9	115.9	115.9	115.9	115.9	48	48	48	48	48	44	44	44	44	44	44	44	44	44
Seranton	43.8	47.9	52.1	71.9	77.1	85.2	90.9	90.9	90.9	100.0	102.3	104.5	104.5	48	48	48	48	48	44	44	44	44	44	44	44	44	44
Seattle	53.1	59.4	75.0	87.5	93.8	93.8	93.8	93.8	93.8	93.8	100.0	100.0	100.0	48	48	48	48	48	44	44	44	44	44	44	44	44	44
Washington	40.0	50.0	62.5	83.3	90.9	90.9	90.9	90.9	90.9	90.9	100.0	100.0	102.3	48	48	48	48	48	44	44	44	44	44	44	44	44	44

UNION SCALES OF WAGES AND HOURS OF LABOR IN SPECIFIED OCCUPATIONS, 1913 TO 1929, BY CITIES—Continued

Electrotypers: Finishers

City	Rates per hour (cents)										Hours per week																
	1913	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1913	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	
Atlanta.....	45.8	50.0	57.3	88.5	96.6	93.2	93.2	96.6	102.3	102.3	102.3	96.6	96.6	96.6	105.7	48	48	48	48	44	44	44	44	44	44	44	44
Birmingham.....	50.0	50.0	50.0	72.9	80.8	89.8	96.6	96.6	96.6	102.3	102.3	102.3	102.3	102.3	105.7	48	48	48	48	44	44	44	44	44	44	44	44
Boston.....	50.0	52.5	52.5	78.1	90.6	90.6	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	48	48	48	48	44	44	44	44	44	44	44	44
Buffalo.....	43.8	50.0	56.3	72.9	77.1	77.1	81.3	81.3	87.5	87.5	91.7	93.8	93.8	93.8	93.8	48	48	48	48	44	44	44	44	44	44	44	44
Chicago.....	40.0	58.3	77.1	104.2	113.7	108.0	129.5	134.1	138.6	140.9	140.9	145.5	145.5	145.5	145.5	48	48	48	48	44	44	44	44	44	44	44	44
Cincinnati.....	43.8	47.9	52.1	66.7	87.5	95.5	85.4	89.6	91.7	91.7	95.8	97.9	97.9	97.9	97.9	48	48	48	48	44	44	44	44	44	44	44	44
Cleveland.....	41.7	52.1	58.3	83.3	83.3	75.0	83.3	93.8	93.8	93.8	97.9	100.0	104.3	104.3	104.3	48	48	48	48	44	44	44	44	44	44	44	44
Dallas.....	37.5	43.8	65.6	72.9	72.9	75.0	75.0	75.0	113.6	113.6	113.6	113.6	113.6	113.6	113.6	48	48	48	48	44	44	44	44	44	44	44	44
Denver.....	43.8	47.9	54.2	62.5	75.0	75.0	75.0	90.9	90.9	90.9	90.9	90.9	90.9	90.9	90.9	48	48	48	48	44	44	44	44	44	44	44	44
Detroit.....	37.5	56.3	56.3	93.8	102.3	102.3	107.5	113.6	113.6	113.6	125.0	125.0	125.0	125.0	125.0	48	48	48	48	44	44	44	44	44	44	44	44
Indianapolis.....	43.8	50.0	63.6	63.6	63.6	85.2	100.0	96.5	96.5	96.5	96.5	100.0	100.0	100.0	100.0	44	44	44	44	44	44	44	44	44	44	44	44
Kansas City, Mo.....	43.8	50.0	62.5	90.6	89.6	89.6	89.6	100.0	104.5	104.5	104.5	104.5	104.5	104.5	104.5	48	48	48	48	44	44	44	44	44	44	44	44
Los Angeles.....	50.0	56.3	70.8	86.4	86.4	86.4	102.3	102.3	102.3	102.3	102.3	102.3	102.3	102.3	102.3	48	48	48	48	44	44	44	44	44	44	44	44
Louisville.....	45.8	45.8	62.5	62.5	68.2	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	48	48	48	48	44	44	44	44	44	44	44	44
Memphis.....	45.8	45.8	62.5	62.5	68.2	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	48	48	48	48	44	44	44	44	44	44	44	44
Milwaukee.....	43.8	50.0	56.3	75.0	81.3	91.7	87.5	95.8	95.8	95.8	97.9	97.9	97.9	97.9	97.9	48	48	48	48	44	44	44	44	44	44	44	44
Minneapolis.....	36.1	50.0	59.4	81.3	91.7	91.7	87.5	95.8	95.8	95.8	97.9	97.9	97.9	97.9	97.9	48	48	48	48	44	44	44	44	44	44	44	44
Newark, N. J.....	37.4	44.9	46.7	62.5	75.0	75.0	79.5	79.5	79.5	79.5	81.3	88.6	88.6	88.6	88.6	48	48	48	48	44	44	44	44	44	44	44	44
New Haven.....	45.8	45.8	62.5	62.5	68.2	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	48	48	48	48	44	44	44	44	44	44	44	44
New York.....	62.5	68.8	75.0	109.1	134.1	134.1	134.1	140.9	140.9	140.9	140.9	145.5	145.5	145.5	145.5	44	44	44	44	44	44	44	44	44	44	44	44
Omaha.....	43.8	52.1	66.7	113.6	102.3	102.3	97.9	102.3	102.3	102.3	102.3	102.3	102.3	102.3	102.3	48	48	48	48	44	44	44	44	44	44	44	44
Philadelphia.....	41.7	64.2	70.0	103.1	113.6	113.6	125.0	125.0	114.6	114.6	118.8	118.8	118.8	118.8	118.8	48	48	48	48	44	44	44	44	44	44	44	44
Pittsburgh.....	43.8	45.8	45.8	85.4	73.2	70.2	87.5	91.7	91.7	91.7	93.8	93.8	93.8	93.8	93.8	48	48	48	48	44	44	44	44	44	44	44	44
Portland, Ore.....	50.0	56.3	90.9	104.5	104.5	104.5	104.5	111.4	114.8	114.8	119.3	119.3	119.3	119.3	119.3	44	44	44	44	44	44	44	44	44	44	44	44
Richmond, Va.....	57.3	60.4	78.1	93.8	93.8	93.8	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	48	48	48	48	44	44	44	44	44	44	44	44
St. Louis.....	45.8	55.0	55.0	85.4	89.6	89.6	93.8	102.2	109.1	111.4	113.6	113.6	115.9	115.9	115.9	48	48	48	48	44	44	44	44	44	44	44	44
St. Paul.....	43.8	50.0	59.4	81.3	91.7	91.7	87.5	95.8	95.8	95.8	97.9	97.9	97.9	97.9	97.9	48	48	48	48	44	44	44	44	44	44	44	44
San Francisco.....	56.3	62.5	62.5	70.2	113.6	113.6	113.6	113.6	125.0	125.0	125.0	125.0	125.0	125.0	125.0	48	48	48	48	44	44	44	44	44	44	44	44
Scranton.....	41.7	43.8	50.0	75.0	90.9	90.9	90.9	97.9	97.9	102.3	102.3	106.8	106.8	106.8	106.8	44	44	44	44	44	44	44	44	44	44	44	44
Seattle.....	52.1	66.7	77.8	104.5	104.5	104.5	104.5	113.6	118.2	118.2	119.3	119.3	119.3	119.3	119.3	44	44	44	44	44	44	44	44	44	44	44	44
Washington.....	50.0	58.3	58.3	93.8	102.3	102.3	90.9	102.3	102.3	102.3	113.6	113.6	113.6	113.6	113.6	44	44	44	44	44	44	44	44	44	44	44	44

[653]

UNION SCALES OF WAGES AND HOURS OF LABOR IN SPECIFIED OCCUPATIONS, 1913 TO 1929, BY CITIES—Continued

Granite cutters, inside

City	Rates per hour (cents)												Hours per week														
	1913	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1913	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	
Baltimore	50.0	62.5	75.0	100.0	100.0	100.0	100.0	112.5	112.5	118.8	118.8	118.8	118.8	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Boston	45.6	60.0	75.0	100.0	100.0	100.0	100.0	100.0	100.0	110.0	112.5	112.5	118.0	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Buffalo	43.8	63.1	75.0	100.0	100.0	100.0	100.0	100.0	106.3	106.3	112.5	112.5	118.8	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Charleston, S. C.	45.0	50.0	60.0	87.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	105.0	105.0	44	44	44	44	44	40	40	44	44	44	44	44	44	44
Cincinnati	---	62.5	75.0	100.0	100.0	100.0	100.0	112.5	112.5	112.5	112.5	112.5	112.5	---	44	44	44	44	44	40	44	44	44	44	44	44	44
Cleveland	50.0	62.5	81.3	100.0	100.0	100.0	106.3	106.3	115.6	115.6	115.6	115.6	118.8	44	44	44	44	44	40	44	44	44	44	44	44	44	44
Dallas	---	62.5	81.3	100.0	100.0	100.0	100.0	100.0	106.3	106.3	106.3	106.3	112.5	---	44	44	44	44	44	44	44	44	44	44	44	44	44
Denver	57.0	68.8	85.0	100.0	106.3	106.3	106.3	106.3	112.5	112.5	112.5	112.5	112.5	---	44	44	44	44	44	44	44	44	44	44	44	44	44
Detroit	45.0	62.5	75.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	112.5	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Fall River	43.0	62.5	75.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	110.0	110.0	110.0	45	44	44	44	44	44	44	44	44	44	44	44	44	44
Los Angeles	62.5	70.0	87.5	100.0	112.5	112.5	112.5	112.5	---	---	---	---	112.5	48	44	44	44	44	44	44	44	---	---	---	44	44	44
Louisville	45.0	60.0	75.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	45	44	44	44	44	44	44	44	44	44	44	44	44	44
Manchester	40.6	50.0	72.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	112.5	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Newark, N. J.	50.0	62.5	79.0	100.0	112.5	112.5	112.5	112.5	112.5	137.5	137.5	137.5	137.5	44	44	44	44	44	44	44	44	44	44	40	44	44	44
New Haven	41.0	60.0	72.5	87.5	100.0	100.0	100.0	100.0	112.5	112.5	112.5	112.5	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44	34
New Orleans	45.0	50.0	75.0	80.0	100.0	100.0	100.0	100.0	100.0	100.0	112.5	112.5	112.5	45	44	44	44	44	44	44	44	44	44	44	44	44	44
New York	50.0	68.8	79.0	100.0	112.5	112.5	112.5	112.5	112.5	137.5	137.5	137.5	137.5	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Philadelphia	50.0	65.0	80.0	100.0	100.0	100.0	112.5	112.5	112.5	112.5	112.5	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Pittsburgh	50.0	62.5	81.3	100.0	106.3	100.0	112.5	112.5	112.5	112.5	125.5	125.5	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Portland, Ore.	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Providence	40.6	60.0	70.0	70.0	100.0	100.0	100.0	100.0	100.0	110.0	110.0	115.0	115.0	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Richmond, Va.	43.8	50.0	70.0	82.5	100.0	100.0	100.0	100.0	100.0	112.5	112.5	112.5	100.0	44	44	44	44	44	44	44	44	44	44	44	44	44	44
St. Louis	50.0	60.0	75.0	100.0	100.0	100.0	100.0	112.5	112.5	112.5	112.5	112.5	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Salt Lake City	62.5	75.0	81.3	100.0	100.0	112.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44	44
San Francisco	62.5	70.0	87.5	100.0	112.5	112.5	112.5	112.5	112.5	118.8	118.8	112.5	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Seattle	62.5	75.0	87.5	100.0	112.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	44	44	44	44	44	40	40	40	44	44	44	44	44	44
Washington	45.0	62.5	87.5	100.0	100.0	100.0	112.5	112.5	112.5	125.0	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44	44

Hod carriers

[illegible]

40 hours per week. Oct. 16 to Mar. 15, inclusive.

40 hours per week, Jan. to Mar. 10, inclusive.

* 40 hours per week, November to February, inclusive.

all 44 hours per week, October to April, inclusive.

14 48 hours per week, October to April, inclusive.

us Old scale; strike pending.

44 hours per week, November to March, inclusive.

40 hours per week, November to April, inclusive.

40 hours per week, October to March, inclusive.

7 40 hours per week, Nov. 15 to Apr. 15.

44 hours per week, November to March, inclusive.

40 hours per week, January to March, June to Sept.

MONTHLY LABOR REVIEW

UNION SCALES OF WAGES AND HOURS OF LABOR IN SPECIFIED OCCUPATIONS, 1913 TO 1929, BY CITIES—Continued
Inside wiremen

City	Rates per hour (cents)												Hours per week													
	1913	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1913	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929
Atlanta	43.8	55.0	75.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	112.5	48	48	44	44	44	44	44	44	44	44	44	44	44
Baltimore	62.5	70.0	80.0	100.0	100.0	100.0	100.0	120.0	131.3	131.3	143.8	143.8	150.0	44	48	44	44	44	44	44	44	44	44	44	44	44
Birmingham	62.5	62.5	80.0	100.0	100.0	85.0	100.0	112.5	112.5	112.5	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Boston	55.0	70.0	77.5	100.0	100.0	100.0	100.0	110.0	110.0	120.0	125.0	125.0	137.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Buffalo	45.0	70.0	70.0	90.0	90.0	90.0	100.0	112.5	112.5	125.0	125.0	125.0	137.5	48	44	44	44	44	44	44	44	44	44	44	44	44
Chicago	75.0	81.3	87.5	125.0	125.0	110.0	110.0	125.0	150.0	150.0	156.3	162.5	162.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Cincinnati	50.0	68.8	71.9	100.0	100.0	95.0	105.0	115.0	125.0	131.3	135.0	137.5	137.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Cleveland	57.5	81.3	90.0	125.0	137.5	110.0	125.0	137.5	143.8	150.0	150.0	150.0	150.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Dallas	56.3	80.0	87.5	100.0	112.5	112.5	112.5	112.5	125.0	125.0	125.0	125.0	137.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Denver	56.3	82.5	100.0	100.0	100.0	100.0	112.5	112.5	125.0	137.5	137.5	137.5	137.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Detroit	46.9	75.0	93.8	125.0	100.0	100.0	100.0	125.0	130.0	140.0	150.0	150.0	150.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Fall River	37.5	60.0	70.0	85.0	90.0	85.0	95.0	95.0	95.0	95.0	95.0	95.0	100.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Indianapolis	47.5	67.5	72.0	100.0	100.0	100.0	110.0	115.0	125.0	125.0	137.5	150.0	150.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Jacksonville	45.0	65.0	85.0	100.0	100.0	85.0	85.0	85.0	100.0	125.0	125.0	125.0	125.0	48	48	44	44	44	44	44	44	44	44	44	44	44
Kansas City, Mo.	62.5	75.0	87.5	100.0	100.0	100.0	106.3	125.0	125.0	125.0	125.0	125.0	125.0	48	48	44	44	44	44	44	44	44	44	44	44	44
Little Rock	50.0	55.0	75.0	87.5	87.5	87.5	87.5	87.5	87.5	87.5	87.5	87.5	87.5	48	44	44	44	44	44	44	44	44	44	44	44	44
Los Angeles	50.0	62.5	80.0	100.0	100.0	100.0	112.5	112.5	112.5	112.5	112.5	112.5	112.5	48	48	44	44	44	44	44	44	44	44	44	44	44
Louisville	40.0	50.0	75.0	75.0	100.0	90.0	100.0	100.0	106.3	106.3	115.0	125.0	131.3	48	48	44	44	44	44	44	44	44	44	44	44	44
Manchester	31.3	60.0	75.0	100.0	100.0	80.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	48	48	44	44	44	44	44	44	44	44	44	44	44
Memphis	45.0	62.5	75.0	100.0	100.0	87.5	87.5	87.5	100.0	100.0	100.0	112.5	112.5	48	44	44	44	44	44	44	44	44	44	44	44	44
Milwaukee	45.0	56.3	75.0	85.0	100.0	100.0	100.0	112.5	112.5	112.5	112.5	120.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Minneapolis	50.0	68.8	68.8	81.3	100.0	87.5	87.5	100.0	100.0	100.0	100.0	100.0	100.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Newark, N. J.	56.3	68.8	75.0	100.0	112.5	112.5	112.5	131.3	131.3	150.0	156.3	162.5	162.5	44	44	44	44	44	44	44	44	44	44	44	44	44
New Haven	60.0	70.0	82.5	93.8	93.8	85.0	90.8	100.0	100.0	100.0	100.0	106.3	106.3	44	44	44	44	44	44	44	44	44	44	44	44	44
New Orleans	45.0	56.3	70.0	90.0	100.0	100.0	90.0	100.0	110.0	110.0	120.0	125.0	125.0	48	48	48	44	44	44	44	44	44	44	44	44	44
New York	56.3	65.0	75.0	112.5	112.5	112.5	112.5	131.3	131.3	150.0	150.0	150.0	165.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Omaha	50.0	70.0	87.5	112.5	112.5	100.0	112.5	112.5	112.5	112.5	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Philadelphia	45.0	65.0	75.0	100.0	112.5	90.0	100.0	112.5	112.5	125.0	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Pittsburgh	57.5	68.8	75.0	100.0	125.0	112.5	125.0	125.0	143.8	143.8	150.0	156.3	156.3	48	44	44	44	44	44	44	44	44	44	44	44	44
Portland, Ore.	56.3	72.2	80.0	100.0	100.0	90.0	100.0	112.5	112.5	125.0	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Providence	43.8	60.0	70.0	85.0	115.0	90.0	90.0	100.0	100.0	110.0	110.0	110.0	110.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Richmond	43.8	60.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	48	48	44	44	44	44	44	44	44	44	44	44	44
St. Louis	65.0	75.0	87.5	100.0	125.0	125.0	125.0	150.0	150.0	150.0	150.0	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44
St. Paul	46.9	68.8	81.3	100.0	100.0	80.0	80.0	100.0	100.0	100.0	100.0	100.0	100.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Salt Lake City	56.3	75.0	87.5	112.5	90.0	90.0	100.0	100.0	100.0	100.0	100.0	112.5	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44

UNION SCALES OF WAGES AND HOURS OF LABOR IN SPECIFIED OCCUPATIONS, 1913 TO 1929, BY CITIES—Continued

Painters—Continued

City	Rates per hour (cents)										Hours per week									
	1913	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1928	1927	1926	1925	1924	1923	1922
Portland, Ore.	50.0	70.0	90.0	100.0	90.0	90.0	100.0	100.0	100.0	100.0	112.5	105.0	105.0	40	40	40	40	44	44	44
Providence	45.5	62.5	90.0	90.0	90.0	80.0	90.0	100.0	100.0	100.0	106.3	106.3	106.3	44	44	44	44	44	44	44
Richmond, Va.	37.5	50.0	60.0	65.0	75.0	67.5	80.0	80.0	80.0	80.0	80.0	80.0	80.0	44	44	48	48	48	48	48
St. Louis	57.0	75.0	75.0	100.0	125.0	100.0	112.5	130.0	130.0	130.0	143.8	143.8	143.8	44	44	44	44	44	44	44
St. Paul	50.0	62.5	70.0	100.0	100.0	80.0	90.0	90.0	90.0	90.0	95.0	95.0	100.0	44	44	44	44	44	44	44
Salt Lake City	56.3	75.0	90.0	100.0	100.0	90.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	44	44	44	44	44	44	44
San Francisco	56.3	75.0	87.5	106.3	106.3	100.0	104.4	104.4	104.4	104.4	112.5	112.5	112.5	44	44	44	44	44	44	44
Seranton	40.0	50.0	65.0	87.5	87.5	87.5	87.5	100.0	112.5	112.5	112.5	112.5	112.5	40	40	40	40	40	40	40
Seattle	56.3	75.0	90.0	100.0	93.8	93.8	100.0	106.0	112.5	112.5	112.5	112.5	112.5	44	44	44	44	44	44	44
Washington	50.0	75.0	75.0	90.0	100.0	100.0	112.5	112.5	118.8	118.8	118.8	121.9	125.0	44	44	44	44	44	44	44

Plasterers

Atlanta	45.0	50.0	60.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	125.0	125.0	125.0	44	44	44	44	44	44	44
Baltimore	62.5	72.0	87.5	112.5	125.0	125.0	150.0	175.0	175.0	175.0	175.0	175.0	175.0	44	44	44	44	44	44	44
Birmingham	62.5	62.5	75.0	75.0	100.0	100.0	100.0	125.0	125.0	125.0	125.0	125.0	125.0	44	44	44	44	44	44	44
Boston	65.0	70.0	80.0	100.0	125.0	112.5	125.0	125.0	125.0	125.0	150.0	150.0	150.0	44	44	44	44	44	44	44
Buffalo	60.0	70.0	85.0	100.0	100.0	100.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	44	44	44	44	44	44	44
Charleston, S. C.	40.0	50.6	75.0	100.0	85.0	85.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	44	44	44	44	44	44	44
Chicago	75.0	81.3	87.5	125.0	125.0	110.0	150.0	150.0	150.0	150.0	162.5	162.5	162.5	44	44	44	44	44	44	44
Cincinnati	68.8	75.0	87.5	100.0	112.5	112.5	125.0	150.0	150.0	150.0	150.0	150.0	150.0	44	44	44	44	44	44	44
Cleveland	62.5	85.0	90.0	125.0	125.0	125.0	125.0	156.3	156.3	156.3	162.5	162.5	162.5	44	44	44	44	44	44	44
Dallas	75.0	100.0	112.5	112.5	150.0	137.5	150.0	162.5	162.5	162.5	162.5	162.5	162.5	44	44	44	44	44	44	44
Denver	75.0	87.5	87.5	125.0	125.0	125.0	125.0	150.0	150.0	150.0	150.0	150.0	150.0	44	44	44	44	44	44	44
Detroit	68.8	75.0	87.5	125.0	125.0	112.5	150.0	156.3	156.3	156.3	162.5	162.5	162.5	44	44	44	44	44	44	44
Fall River	55.0	75.0	85.0	115.0	115.0	95.0	110.0	110.0	125.0	125.0	125.0	125.0	125.0	44	44	44	44	44	44	44
Indianapolis	62.5	75.0	87.5	100.0	112.5	112.5	131.3	130.0	150.0	150.0	155.0	157.5	157.5	44	44	44	44	44	44	44
Jacksonville	56.3	68.8	75.0	87.5	87.5	87.5	100.0	125.0	125.0	125.0	175.0	175.0	125.0	44	44	44	44	44	44	44
Kansas City, Mo.	75.0	87.5	100.0	120.0	120.0	112.5	137.5	150.0	150.0	150.0	150.0	150.0	150.0	44	44	44	44	44	44	44
Little Rock	62.5	75.0	87.5	112.5	112.5	112.5	112.5	150.0	150.0	150.0	150.0	150.0	150.0	44	44	44	44	44	44	44

Los Angeles.....	75.0	75.0	87.5	112.5	125.0	125.0	150.0	150.0	150.0	150.0	150.0	44	44	44	44	44	44	40
Louisville.....	65.0	70.0	75.0	100.0	112.5	125.0	150.0	150.0	162.5	162.5	162.5	44	44	44	44	44	44	40
Manchester.....	50.0	75.0	90.0	112.5	112.5	112.5	150.0	137.5	137.5	137.5	137.5	48	44	44	44	44	44	40
Memphis.....	75.0	87.5	87.5	100.0	112.5	112.5	137.5	156.3	156.3	156.3	156.3	44	44	44	44	44	44	40
Milwaukee.....	65.0	70.0	87.5	87.5	112.5	112.5	125.0	137.5	137.5	137.5	137.5	44	44	44	44	44	44	40
Minneapolis.....	70.0	75.0	90.0	112.5	125.0	100.0	125.0	137.5	137.5	137.5	137.5	44	44	44	44	44	44	44
Newark, N. J.....	65.0	75.0	87.5	125.0	125.0	125.0	150.0	150.0	162.5	175.0	175.0	44	44	44	44	44	44	44
New Haven.....	60.0	70.0	82.5	100.0	100.0	112.5	125.0	125.0	137.5	137.5	143.8	44	44	44	44	44	44	44
New Orleans.....	62.5	62.5	75.0	100.0	100.0	100.0	125.0	125.0	125.0	125.0	125.0	48	45	45	44	45	45	45
New York.....	68.8	75.0	93.8	110.8	125.0	125.0	150.0	150.0	175.0	175.0	175.0	44	44	44	44	44	40	40
Omaha.....	75.0	80.0	87.5	112.5	125.0	125.0	137.5	137.5	137.5	137.5	137.5	44	44	44	44	44	44	44
Philadelphia.....	62.5	75.0	80.0	125.0	125.0	125.0	150.0	150.0	175.0	175.0	175.0	44	40	40	40	40	40	40
Pittsburgh.....	62.5	75.0	85.0	115.0	112.5	137.5	156.3	156.3	166.3	166.3	166.3	44	44	44	44	44	40	40
Portland, Oreg.....	75.0	87.5	110.0	112.5	112.5	125.0	125.0	137.5	137.5	137.5	150.0	44	44	44	44	44	40	40
Providence.....	62.5	80.0	100.0	115.0	105.0	125.0	125.0	150.0	150.0	150.0	150.0	44	40	40	40	40	40	40
Richmond, Va.....	37.5	62.5	75.0	87.5	87.5	125.0	125.0	125.0	125.0	125.0	125.0	48	44	44	44	44	44	44
St. Louis.....	75.0	87.5	100.0	125.0	137.5	150.0	175.0	175.0	175.0	175.0	175.0	44	44	44	44	44	44	44
St. Paul.....	62.5	75.0	90.0	112.5	100.0	112.5	125.0	125.0	125.0	125.0	125.0	44	44	44	44	44	44	44
Salt Lake City.....	75.0	87.5	100.0	125.0	112.5	125.0	150.0	150.0	150.0	150.0	150.0	44	44	44	44	44	44	44
San Francisco.....	87.5	100.0	112.5	125.0	137.5	127.5	127.5	150.0	150.0	150.0	150.0	44	40	40	44	44	44	44
Scranton.....	55.0	70.0	80.0	100.0	125.0	150.0	150.0	150.0	150.0	150.0	150.0	44	44	44	44	44	40	40
Seattle.....	75.0	100.0	112.5	125.0	125.0	112.5	137.5	137.5	137.5	137.5	150.0	44	40	40	40	40	40	40
Washington.....	62.5	70.0	87.5	100.0	125.0	125.0	150.0	162.5	162.5	162.5	162.5	44	44	44	44	44	44	40

[659]

Plasterers' laborers

Baltimore.....	40.0	50.0	60.0	80.0	80.0	80.0	95.0	95.0	100.0	100.0	100.0	40	40	40	40	40	40	40
Birmingham.....	41.5	50.0	50.0	60.0	80.0	80.0	95.0	95.0	100.0	100.0	100.0	44	44	44	44	44	44	44
Boston.....	48.0	56.3	62.5	106.3	106.3	106.3	125.0	125.0	125.0	125.0	125.0	40	40	40	40	40	40	40
Chicago.....	45.0	50.0	65.0	85.0	85.0	85.0	95.0	95.0	95.0	95.0	95.0	44	44	44	44	44	44	44
Cincinnati.....	35.0	55.0	57.5	87.5	87.5	87.5	95.0	95.0	95.0	95.0	95.0	45	45	45	45	45	45	45
Cleveland.....	43.8	59.4	68.8	81.3	81.3	81.3	95.0	95.0	95.0	95.0	95.0	44	44	44	44	44	44	44
Denver.....	37.5	50.0	75.0	100.0	75.0	100.0	100.0	100.0	100.0	100.0	100.0	44	44	44	44	44	44	44
Detroit.....	37.5	50.0	75.0	100.0	75.0	100.0	100.0	100.0	100.0	100.0	100.0	44	44	44	44	44	44	44
Kansas City, Mo.....	37.5	55.0	68.8	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	44	44	44	44	44	44	44
Los Angeles.....	61.4	62.5	75.0	100.0	112.5	112.5	112.5	112.5	112.5	112.5	112.5	44	44	44	44	44	44	44
Louisville.....	38.0	45.0	55.0	80.0	80.0	80.0	85.0	85.0	85.0	85.0	85.0	44	44	44	44	44	44	44
Memphis.....	32.5	50.0	50.0	75.0	62.0	62.0	75.0	75.0	75.0	75.0	75.0	44	44	44	44	44	44	44

⁷ Work 53 hours; paid for 54.
¹⁵ Old scale; strike pending.
²² 48 hours per week, October to March, inclusive.
⁶⁶ 44 hours per week, Nov. 14 to May 14.

UNION SCALES OF WAGES AND HOURS OF LABOR IN SPECIFIED OCCUPATIONS, 1913 TO 1929, BY CITIES—Continued

Plasterers' laborers—Continued

City	Rates per hour (cents)										Hours per week															
	1913	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1913	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929
Milwaukee	32.5	50.0	55.0	70.0	85.0	75.0	75.0	85.0	90.0	90.0	90.0	90.0	90.0	48	48	44	44	44	44	44	44	44	44	44	44	44
Minneapolis	40.6	55.0	60.0	85.0	85.0	75.0	85.0	85.0	90.0	90.0	90.0	95.0	95.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Newark, N. J.	---	45.0	50.0	87.5	87.5	75.0	87.5	100.0	100.0	112.5	112.5	112.5	112.5	---	44	44	44	44	44	44	44	44	44	44	44	44
New Haven	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
New Orleans	22.5	28.3	35.0 45.0 65.0	50.0	50.0	50.0	65.0	75.0	75.0	75.0	75.0	75.0	75.0	48	45	45	45	45	45	45	45	45	45	45	45	45
New York	40.6	56.3	62.5	87.5	93.8	93.8	106.3	106.3	106.3	121.9 125.0	121.9	121.9	125.0	44	44	44	44	44	44	44	44	44	44	40	40	40
Philadelphia	43.8	50.0	62.5	110.0	110.0	100.0	100.0	112.5	112.5	112.5	112.5	112.5	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Pittsburgh	40.0	55.0	60.0	90.0	100.0	80.0	100.0	100.0	100.0	112.5	112.5	112.5	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Portland, Oreg.	50.0	62.5	75.0	93.8	90.0	90.0	100.0	100.0	100.0	112.5	112.5	112.5	112.5	48	48	44	44	44	44	44	44	44	44	40	40	40
St. Louis	56.3	62.5	75.0	87.5	100.0	100.0	112.5	125.0	125.0	125.0	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	40	40
Salt Lake City	56.3	68.8	75.0	100.0	87.5	87.5	100.0	125.0	125.0	125.0	100.0	100.0	100.0	44	44	44	44	44	44	44	44	44	44	44	44	44
San Francisco	62.5	68.8	87.5	106.3	112.5	95.0	83.2	83.2	100.0	100.0	100.0	100.0	100.0	44	44	44	40	40	46½	46½	46½	44	44	44	44	44
Scranton	---	35.0	50.0	68.5	70.0	60.0	60.0	70.0	70.0	70.0	70.0	70.0	70.0	---	44	44	44	44	44	44	44	44	44	44	44	44
Seattle	50.0	75.0	87.5	87.5	87.5	87.5	93.8	100.0	100.0	100.0	100.0	100.0	100.0	44	44	44	44	44	44	44	44	44	44	40	46	40

Plumbers

Atlanta	44.4	68.8	75.0	75.0	75.0	100.0	100.0	112.5	125.0	125.0	125.0	125.0	125.0	53	44	44	44	44	44	44	44	44	44	44	44	44
Baltimore	50.0	68.8	75.0	87.5	100.0	93.8	100.0	118.8	125.0	125.0	125.0	125.0	137.5	48	44	44	44	44	44	44	44	44	44	44	44	44
Birmingham	68.8	87.5	112.5	150.0	150.0	125.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Boston	60.0	75.0	80.0	100.0	100.0	100.0	105.0	112.5	110.0	125.0	125.0	125.0	137.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Buffalo	56.3	68.8	75.0	100.0	100.0	100.0	100.0	112.5	118.8	137.5	137.5	137.5	137.5	48	44	44	44	44	44	44	44	44	44	44	44	44
Charleston, S. C.	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Chicago	75.0	75.0	84.4	125.0	125.0	110.0	110.0	125.0	130.0	150.0	150.0	162.5	162.5	---	48	48	44	44	44	44	44	44	44	44	44	44
Cincinnati	61.8	65.5	75.0	100.0	100.0	100.0	112.5	125.0	135.0	135.0	137.5	137.5	137.5	44½	44	44	44	44	44	44	44	44	44	44	44	44
Cleveland	62.5	81.3	90.0	100.0	137.5	110.0	131.3	137.5	150.0	150.0	150.0	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Dallas	68.8	87.5	100.0	125.0	137.5	125.0	125.0	137.5	150.0	150.0	150.0	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Denver	62.5	87.5	87.5	100.0	106.3	106.3	118.8	118.8	125.0	137.5	137.5	137.5	137.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Detroit	56.3	75.0	90.0	125.0	100.0	100.0	125.0	130.0	130.0	140.0	150.0	150.0	150.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Fall River	43.8	56.3	67.5	100.0	100.0	85.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Indianapolis	62.5	75.0	87.5	100.0	125.0	115.0	122.5	130.0	135.0	135.0	142.5	142.5	150.0	44	44	44	44	44	44	44	44	44	44	44	44	40
Jacksonville	62.5	75.0	80.0	93.8	112.5	100.0	112.5	125.0	125.0	150.0	162.5	162.5	162.5	48	44	44	44	44	44	44	44	44	44	44	44	44

[illegible]

[661]

Sheet-metal workers

City	1880	1890	1900	1910	1920	1930	1940	1950	1960	1970	1980	1990	2000	2010	2020
Baltimore	40.0	52.5	80.0	80.0	90.0	90.0	90.0	100.0	120.0	120.0	131.3	131.3	131.3	44	44
Birmingham	55.0	65.0	75.0	100.0	100.0	85.0	100.0	100.0	100.0	112.5	112.5	112.5	115.0	44	44
Boston	55.0	70.0	80.0	100.0	100.0	100.0	105.0	110.0	110.0	125.0	125.0	125.0	137.5	44	44
Buffalo	45.0	56.3	62.5	87.5	87.5	100.0	100.0	110.0	110.0	111.0	110.0	115.0	115.0	44	44
Chicago	65.0	70.0	75.0	125.0	125.0	110.0	125.0	125.0	137.5	137.5	130.0	150.0	150.0	44	44
Cincinnati	45.0	52.5	56.0	70.0	80.0	80.0	90.0	100.0	110.0	116.3	120.0	122.5	122.5	48	48
Cleveland	45.0	80.0	85.0	125.0	125.0	104.0	125.0	125.0	125.0	125.0	137.5	137.5	137.5	44	44
Dallas	50.0	75.0	87.5	100.0	100.0	100.0	112.5	115.6	125.0	125.0	125.0	125.0	125.0	44	44
Denver	56.3	75.0	87.5	100.0	100.0	100.0	112.5	112.5	125.0	125.0	125.0	125.0	125.0	44	44
Detroit	40.0	70.0	80.0	125.0	100.0	100.0	112.5	112.5	112.5	125.0	125.0	125.0	125.0	44	44

144 hours per week, June to August, inclusive.
148 hours per week, November to April, inclusive.

²¹ 44 hours per week, June to September, inclusive.
²⁰ For helpers.

UNION SCALES OF WAGES AND HOURS OF LABOR IN SPECIFIED OCCUPATIONS, 1913 TO 1929, BY CITIES—Continued

Sheet-metal workers—Continued

City	Rates per hour (cents)										Hours per week																
	1913	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1913	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	
Indianapolis	47.5	60.0	60.0	100.0	100.0	92.5	97.5	105.0	105.0	107.5	115.0	122.5	122.5	48	44	44	44	44	44	44	44	44	44	44	44	44	44
Kansas City, Mo.	57.5	67.5	70.0	100.0	100.0	100.0	100.0	112.5	112.5	112.5	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Little Rock	50.0	65.0	80.0	100.0	100.0	90.0	90.0	100.0	90.0	90.0	90.0	90.0	90.0	48	48	48	44	44	44	44	44	44	44	44	44	44	44
Los Angeles	56.3	68.5	68.5	100.0	112.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Louisville	40.0	50.0	65.0	80.0	80.0	80.0	90.0	100.0	100.0	100.0	100.0	100.0	100.0	48	44	44	44	44	44	44	44	44	44	44	44	44	44
Manchester	34.4	37.5	44.3	100.0	90.0	80.0	90.0	90.0	100.0	100.0	100.0	100.0	100.0	{100.0}	44	44	44	44	44	44	44	44	44	44	44	44	44
Memphis	45.0	62.5	75.0	100.0	100.0	87.5	87.5	105.0	112.5	112.5	112.5	112.5	112.5	48	48	48	44	44	44	44	44	44	44	44	44	44	44
Milwaukee	42.5	60.0	60.0	67.5	100.0	85.0	85.0	100.0	100.0	100.0	100.0	100.0	105.0	48	48	48	44	44	44	44	44	44	44	44	44	44	44
Minneapolis	50.0	56.3	70.0	100.0	100.0	90.0	90.0	90.0	90.0	100.0	100.0	100.0	106.3	48	44	44	44	44	44	44	44	44	44	44	44	44	44
Newark, N. J.	60.0	75.0	87.5	100.0	112.5	112.5	112.5	131.3	137.5	150.0	150.0	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44	44
New Haven	47.7	59.1	75.0	87.5	100.0	87.5	100.0	106.3	106.3	112.5	112.5	112.5	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44	44
New Orleans	59.4	68.8	80.0	100.0	100.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	44	44	44	44	44	44	44	44	44	44	44	44	44	44
New York	59.4	70.0	75.0	112.5	112.5	112.5	112.5	131.3	131.3	150.0	150.0	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Omaha	42.5	68.0	75.0	112.5	112.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Philadelphia	50.0	70.0	75.0	110.0	100.0	90.0	100.0	112.5	112.5	112.5	118.8	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Pittsburgh	55.0	70.0	80.0	90.0	112.5	100.0	117.5	131.3	143.8	150.0	150.0	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Portland, Ore.	56.3	82.5	86.0	100.0	100.0	90.0	100.0	106.3	112.5	118.8	118.8	118.8	118.8	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Providence	46.0	57.0	65.0	100.0	100.0	87.5	95.0	100.0	110.0	110.0	110.0	110.0	110.0	44	44	44	44	44	44	44	44	44	44	44	44	44	44
St. Louis	60.0	65.0	75.0	85.0	125.0	100.0	125.0	137.5	137.5	137.5	150.0	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44	44
St. Paul	50.0	56.3	70.0	100.0	100.0	90.0	90.0	90.0	90.0	100.0	100.0	100.0	106.3	48	44	44	44	44	44	44	44	44	44	44	44	44	44
Salt Lake City	57.5	62.5	87.5	100.0	90.0	90.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	44	44	44	44	44	44	44	44	44	44	44	44	44	44
San Francisco	68.8	82.5	100.0	112.5	125.0	106.3	106.3	106.3	106.3	106.3	112.5	112.5	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Scranton	43.8	56.3	75.0	87.5	87.5	87.5	93.8	112.5	112.5	118.8	125.0	125.0	125.0	48	44	44	44	44	44	44	44	44	44	44	44	44	44
Seattle	56.3	82.5	90.0	100.0	100.0	93.8	100.0	106.3	125.0	125.0	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Washington	50.0	70.0	75.0	92.5	100.0	100.0	106.3	120.0	125.0	131.3	137.5	137.5	137.5	44	44	44	44	44	44	44	44	44	44	44	44	44	44

Stonecutters

City	1913	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1913	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929
Baltimore	50.0	56.3	75.0	100.0	100.0	90.0	100.0	112.5	125.0	125.0	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Boston	56.3	70.0	70.0	100.0	100.0	100.0	110.0	110.0	110.0	125.0	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Buffalo	56.3	62.5	75.0	100.0	100.0	100.0	100.0	120.0	125.0	125.0	135.0	137.5	137.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Chicago	62.5	70.0	81.3	125.0	125.0	102.5	102.5	125.0	137.5	150.0	150.0	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44

Cincinnati	56.3	70.0	77.5	115.0	125.0	125.0	125.0	125.0	125.0	132.5	150.0	150.0	150.0	44½	44	44	44	44	44
Cleveland	60.0	77.5	80.0	112.5	125.0	125.0	125.0	125.0	125.0	135.0	137.5	137.5	137.5	44	44	44	44	44	44
Dallas	62.5	75.0	87.5	100.0	125.0	125.0	125.0	125.0	125.0	137.5	137.5	137.5	137.5	44	44	44	44	44	44
Denver	62.5	75.0	87.5	100.0	112.5	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	44	44	44	44	44	44
Detroit	62.5	70.0	80.0	125.0	112.5	112.5	125.0	125.0	125.0	137.5	137.5	137.5	137.5	44	44	44	44	44	44
Indianapolis	56.3	62.5	75.0	100.0	100.0	100.0	100.0	100.0	100.0	125.0	125.0	125.0	125.0	44	44	44	44	44	44
Kansas City,																			
Mo.	56.3	62.5	75.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	125.0	125.0	125.0	44	44	44	44	44	44
Little Rock	55.0	60.0	65.0	100.0	100.0	80.0	87.5	112.5	112.5	---	125.0	125.0	125.0	44	44	44	44	44	44
Louisville	56.3	60.0	75.0	100.0	100.0	100.0	100.0	112.5	112.5	112.5	115.0	115.0	115.0	44	44	44	44	44	44
Memphis	65.0	75.0	75.0	100.0	112.5	112.5	125.0	125.0	125.0	137.5	137.5	137.5	137.5	44	44	44	44	44	44
Milwaukee	50.0	---	---	100.0	90.0	90.0	106.3	112.5	112.5	125.0	125.0	125.0	125.0	44	44	44	44	44	44
Minneapolis	56.3	62.5	75.0	87.5	112.5	112.5	100.0	112.5	125.0	125.0	137.5	131.3	131.3	44	44	44	44	44	44
Newark, N. J.	68.8	68.8	84.4	112.5	112.5	112.5	125.0	131.3	137.5	150.0	150.0	168.8	168.8	44	44	44	44	44	44
New Orleans	---	---	---	---	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	---	44	44	44	44	44
New York	68.8	68.8	84.4	100.0	112.5	112.5	{125.0}	131.3	137.5	150.0	150.0	168.8	168.8	44	44	44	44	44	44
Philadelphia	50.0	65.0	82.5	135.0	135.0	100.0	112.5	125.0	125.0	131.3	131.3	131.3	131.3	44	44	44	44	44	44
Richmond, Va.	54.5	62.5	75.0	87.5	100.0	100.0	100.0	112.5	112.5	112.5	125.0	125.0	137.5	44	44	44	44	44	44
Sf. Louis	56.3	70.0	85.0	100.0	100.0	100.0	112.5	125.0	125.0	125.0	125.0	125.0	125.0	44	44	44	44	44	44
St. Paul	56.3	62.5	75.0	87.5	112.5	100.0	112.5	112.5	125.0	125.0	137.5	131.3	131.3	44	44	44	44	44	44
San Francisco	---	---	---	---	---	---	---	---	---	---	---	---	---	---	44	44	44	44	44
Scranton	50.0	56.3	60.0	90.0	100.0	100.0	100.0	112.5	125.0	125.0	125.0	125.0	125.0	44	44	44	44	44	44
Washington	54.0	65.0	87.5	100.0	100.0	100.0	112.5	112.5	112.5	125.0	125.0	125.0	125.0	44	44	44	44	44	44

Structural-iron workers

Atlanta	62.5	75.0	80.0	95.0	95.0	95.0	112.5	80.0	100.0	112.5	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	
---------	------	------	------	------	------	------	-------	------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	--

⁷³ 48 hours per week, December to March, inclusive.

21 44 hours per week. June to September, inclusive

44 hours per week. June to August, inclusive.

UNION SCALES OF WAGES AND HOURS OF LABOR IN SPECIFIED OCCUPATIONS, 1913 TO 1929, BY CITIES—Continued

Typesetting-machine operators, daywork: Newspaper

City	Rates per hour (cents)												Hours per week													
	1913	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1913	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929
Atlanta.....	48 8.5	48 8.5	48 8.5	48 9.0	48 10.5	48 10.0	48 10.5	48 10.5	48 12.0	48 12.0	48 12.0	48 12.0	48 12.0	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48
Baltimore.....	53 6	61 9	65 5	67 5	67 5	67 5	67 5	67 5	67 5	67 5	67 5	67 5	67 5	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48
Birmingham.....	52 5	57 7	67 5	67 5	67 5	67 5	67 5	67 5	67 5	67 5	67 5	67 5	67 5	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48
Boston.....	63 0	68 0	83 0	83 0	83 0	83 0	83 0	83 0	83 0	83 0	83 0	83 0	83 0	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48
Buffalo.....	50 0	59 4	65 6	71 9	87 5	87 5	87 5	95 8	95 8	102 1	102 1	102 1	106 3	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48
Charleston, S. C.....	48 9.0	48 9.0	48 9.0	48 9.0	48 9.0	48 9.0	48 9.0	48 9.0	48 9.0	48 9.0	48 9.0	48 9.0	48 9.0	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48
Chicago.....	48 50.0	48 53.0	48 64.0	48 72.0	48 72.0	48 72.0	48 72.0	48 72.0	48 72.0	48 72.0	48 72.0	48 72.0	48 72.0	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48
Cincinnati.....	52 1	56 3	87 5	107 3	107 3	107 3	107 3	107 3	107 3	107 3	107 3	107 3	107 3	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48
Cleveland.....	53 8	62 5	68 8	87 5	93 8	96 9	103 1	107 3	107 3	107 3	107 3	107 3	107 3	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48
Dallas.....	48 12.5	48 12.0	48 12.0	48 15.0	48 15.0	48 15.0	48 15.0	48 15.0	48 15.0	48 15.0	48 15.0	48 15.0	48 15.0	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48
Denver.....	63 3	72 7	72 7	97 8	97 8	97 8	97 8	97 8	97 8	97 8	97 8	97 8	97 8	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48
Detroit.....	55 0	60 5	74 5	74 5	74 5	74 5	74 5	74 5	74 5	74 5	74 5	74 5	74 5	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48
Fall River.....	43 8	36 9	50 0	75 0	75 0	75 0	75 0	75 0	75 0	75 0	75 0	75 0	75 0	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48
Indianapolis.....	50 0	56 3	60 4	81 3	93 8	89 6	100 0	100 0	104 2	104 2	104 2	104 2	104 2	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48
Jacksonville.....	48 9.0	55 2	58 3	83 3	83 3	83 3	83 3	83 3	83 3	83 3	83 3	83 3	83 3	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48
Kansas City, Mo.....	59 4	59 4	68 8	90 6	90 6	90 6	90 6	90 6	90 6	90 6	90 6	90 6	90 6	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48
Little Rock.....	48 9.5	65 0	78 6	90 5	90 5	90 5	90 5	90 5	90 5	90 5	90 5	90 5	90 5	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48
Los Angeles.....	62 2	66 7	75 6	86 7	86 7	86 7	86 7	86 7	86 7	86 7	86 7	86 7	86 7	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48
Louisville.....	49 0	54 5	62 5	87 5	87 5	87 5	87 5	87 5	87 5	87 5	87 5	87 5	87 5	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48
Manchester.....	35 4	39 6	41 7	66 7	70 8	72 9	72 9	72 9	72 9	72 9	72 9	72 9	72 9	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48
Memphis.....	48 9.5	48 9.5	48 9.5	48 12.0	48 12.0	48 12.0	48 12.0	48 12.0	48 12.0	48 12.0	48 12.0	48 12.0	48 12.0	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48
Milwaukee.....	45 8	56 3	56 3	77 1	93 8	93 8	93 8	93 8	93 8	93 8	93 8	93 8	93 8	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48
Minneapolis.....	48 10.0	48 10.0	48 10.0	48 11.0	48 11.0	48 11.0	48 11.0	48 11.0	48 11.0	48 11.0	48 11.0	48 11.0	48 11.0	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48
Newark, N. J.....	60 9	66 6	76 1	89 1	110 9	110 9	110 9	110 9	110 9	110 9	110 9	110 9	110 9	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48
New Haven.....	46 9	50 0	50 0	72 9	78 2	78 2	78 2	78 2	78 2	78 2	78 2	78 2	78 2	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48
New York.....	66 7	71 1	96 7	122 2	122 2	122 2	122 2	122 2	122 2	122 2	122 2	122 2	122 2	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48
Omaha.....	50 0	53 1	68 8	87 5	87 5	87 5	87 5	87 5	87 5	87 5	87 5	87 5	87 5	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48
Philadelphia.....	45 8	52 1	66 7	81 3	79 2	79 2	79 2	79 2	79 2	79 2	79 2	79 2	79 2	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48
Pittsburgh.....	55 0	65 0	77 0	87 5	111 8	111 8	111 8	111 8	111 8	111 8	111 8	111 8	111 8	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48
Portland, Oreg.....	68 3	72 7	100 0	106 7	106 7	106 7	106 7	106 7	106 7	106 7	106 7	106 7	106 7	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48	48 48

Providence	47.9	52.1	66.7	87.5	100.0	95.8	104.2	111.1	104.2	108.3	108.3	108.3	48	48	48	48	48	48
Richmond, Va.	41.7	56.3	56.3	56.3	87.5	87.5	87.5	87.5	94.8	94.8	94.8	94.8	48	48	48	48	48	48
St. Louis	41.0	41.5	41.5	41.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	48	48	48	48	48	48
St. Paul	54.5	63.0	63.0	63.0	88.8	89.8	89.8	93.8	101.3	101.3	101.3	101.3	48	48	48	48	48	48
Salt Lake City	40.0	40.0	40.0	40.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	48	48	48	48	48	48
San Francisco	64.4	68.9	75.6	83.8	107.8	107.8	107.8	107.8	115.6	115.6	115.6	120.0	45	45	45	45	45	45
Scranton	47.9	52.1	60.4	91.3	87.5	87.5	95.8	95.8	104.2	110.4	112.5	114.9	48	48	48	48	48	48
Seattle	75.0	80.1	100.0	114.3	114.3	114.3	114.3	121.4	121.4	123.2	123.2	123.2	42	42	42	42	42	42
Washington	60.7	69.8	92.9	104.0	104.0	104.0	104.0	110.0	110.0	128.6	128.6	128.6	42	42	42	42	42	42

²⁵ Minimum; maximum, 8 hours per day.²⁰ Actual hours worked; minimum, 6; maximum, 8 hours per day.

²²⁶ Work 474 hours, paid for 48.

Maximum; minimum, 7 hours per day.

⁴² Per 1,000 ems nonpareil.

⁴⁷ For 2,500 ems per hour; for 3,500 ems per hour; for 4,500 ems per hour, 55 cents and 1 cent bonus for each additional 100 ems per hour.

⁴⁸ For 3,500 ems per hour; for 4,500 ems per hour, 58 cents and 1 cent bonus for each additional 100 ems per hour.

For 3,500 ems per hour; for 4,500 ems per hour, 70 cents and 1 cent bonus for each additional 100 ems per hour.

Additional 100 ems per hour.
 * For 4,500 ems per hour, \$1.06 and 1 cent bonus for each additional 100 ems per hour.

⁵¹ For 4,500 ems per hour; 1 cent bonus for each additional 100 ems per hour.

⁵² Maximum; minimum, 5½ hours per day.

Minimum; maximum, 7½ hours per day.

67 Maximum; minimum, 7½ hours per day.

⁴⁸ Per 1,000 ems nonpareil and \$1 per day bonus.

⁶⁰ Maximum; minimum, 6½ hours per day.
⁶¹ Maximum; minimum, 40½ hours per week.

* Per 1,000 ems million.

Wage Increases Established by Recent Agreements and Awards**Dining-Car Stewards**

THE dining-car stewards of the Pennsylvania Lines East have secured an increase in their rates of pay, effective May 15, 1929. The new rates have been so arranged that the maximum reaches \$190 per month after 15 years' service. Each group in the service will be given four days off each month.

Railway Clerks

THROUGH negotiations with the management, railway clerks of the Chicago & Alton Railroad in Illinois and Missouri secured an increase in the rates of pay of 3 cents an hour, effective July 1, 1929.

Railway clerks on the Wabash Railroad were granted wage increases ranging from 1 to 4 cents an hour, effective August 1, 1929. This establishes a rate of \$5.90 per day for checkers and \$5.50 for delivery men. Twelve days' vacation with pay was also granted and overtime rates for Sundays and holidays were restored.

Railroad Shopmen

SHOP EMPLOYEES, through negotiations with the management of the Duluth, South Shore & Atlantic Railroad, have secured an increase of 5 cents an hour for mechanics and helpers, effective June 16, 1929. Helpers with less than one year's service will receive an increase of 3 cents an hour.

An agreement, effective June 15, 1929, between the Maine Central Railroad Co., Portland Terminal Co., and shop employees provides for the following increases: Mechanics and mechanics' helpers, 5 cents per hour; coach cleaners, 2 cents per hour; piecework in the car department, 3 per cent and in the locomotive department 5 per cent. No increase is provided for apprentices.

Shop employees on the Fort Dodge, Des Moines & Southern Railroad secured an increase of 4 cents an hour for mechanics and an increase of 3 cents an hour for helpers.

The Mobile & Ohio Railroad granted wage increases of 5 and 6 cents an hour to its shop-craft employees, effective July 1, 1929. The freight-car repairmen and the helpers of all crafts receive the 6 cents an hour increase.

Railroad Signalmen

SIGNAL EMPLOYEES on the Panama Railroad received wage increases establishing the following rates, effective May 1, 1929: Signal repairmen and relay repairmen, \$253 per month; signal maintainers, \$238 per month; and assistant signal maintainers, \$164 per month. The committee's request for a house allowance was not granted by the wage board which governs the establishment of wage rates and working conditions on the Panama Railroad.

Through negotiations with the management of the Pere Marquette Railroad, signalmen thereon have secured an increase of 4 cents an hour, effective June 16, 1929.

The Brotherhood of Railroad Signalmen has secured an increase of 4 cents an hour for its members on the New York, New Haven & Hart-

ford Railroad. The agreement was reached through mediation. G. W. W. Hanger represented the United States Board of Mediation.

Signal employees of the Southern Railway system have secured an increase in rates of pay of 5 cents an hour, effective March 1, 1929. This increase applies to signal employees of the terminals at Birmingham and Atlanta and the Chattanooga Station Co. The agreement is effective as of July 1, 1929, for the employees of the Chattanooga Station Co.

Street-Railway Employees—Memphis, Tenn.

EMPLOYEES of the Memphis Street Railway Co., members of the Amalgamated Association of Street and Electric Railway Employees, Division No. 713, have been awarded an increase in pay by a board of arbitration. Motormen and conductors and barn and shop men receive an increase of $1\frac{1}{2}$ cents an hour, and one-man car operators receive an additional half cent an hour. The new award fixes the pay as follows:

Motormen and conductors, barn and shop men: 49 cents an hour for the first year; 54 cents an hour for the second year; 59 cents an hour for the third year and thereafter.

One-man car operators: $54\frac{1}{2}$ cents an hour for the first year; $59\frac{1}{2}$ cents an hour for the second year; $64\frac{1}{2}$ cents an hour for the third year and thereafter.

The men had asked for a $9\frac{1}{2}$ cents increase, with an increase of 20 cents an hour for one-man car operators. The company had requested a decrease in the rates, with a maximum of 44.7 cents an hour.

Commercial Telegraphers—Press Associations

THE Commercial Telegraphers' Union, by agreement with the United Press, the International News Service, and the Universal Service, made July 2, 1929, secured for its members an increase in wage rates of \$2.50 to \$3 per week.

The new wage scale is as follows:

	Per week
Morse operators, day:	
Cities under 500,000.....	\$50. 25
Cities over 500,000.....	52. 75
Morse operators, night:	
Operators other than relay operators.....	59. 75
New York-Chicago relay offices.....	66. 25
Other relays.....	63. 75
Machine operators, New York, Chicago, Washington, Los Angeles, Kansas City, St. Louis:	
Day.....	42. 50
Night.....	45. 00
Machine operators, other cities:	
Day.....	40. 00
Night.....	42. 50

Overtime rates for Morse operators have been increased 10 cents per hour, and for machine operators $17\frac{1}{2}$ cents per hour.

Miscellaneous Employees—Pennsylvania Railroad

THE FOLLOWING schedule of rates of pay for the miscellaneous forces on the Pennsylvania Railroad in the eastern region and New York zone (excluding the Long Island Railroad) became effective April 16, 1929:¹

¹ The Bulletin, published by The Miscellaneous Forces' Association, Pennsylvania Railroad, July, 1929, p. 16.

SCHEDULE OF RATES

Classification	Rate	Classification	Rate
Ticket examiners:	<i>Per day</i>		<i>Per day</i>
Grade A	\$5.94	Supply-car attendants: Grade A	\$4.60
Grade B	5.78	Stockyard attendants: Grade A	4.85
Grade C	5.26	Lamp-room attendants:	
Ushers and train announcers:		Grade A (head attendant)	4.25
Grade A plus	5.94	Grade A	3.76
Grade A	5.08	Warehousemen: Grade A	4.36
Grade B	4.91	Station cleaners (male):	
Grade C	4.64	Entering rate	3.20
Gatemen:		After 306 days' work in continuous service	3.28
Grade A	5.29	After 612 days' work in continuous service	3.36
Grade B	4.89	After 918 days' work in continuous service	3.44
Parcel-room attendants:		Station cleaners (female):	
Grade A	5.33	Entering rate	2.88
Grade B	4.96	After 306 days' work in continuous service	2.96
Grade C	4.46	After 612 days' work in continuous service	3.04
Immigrant attendants: Grade A	5.51	After 918 days' work in continuous service	3.12
Train and engine crew callers:			
Grade A	4.38	Telephone operators:	<i>Per month</i>
Grade B	4.25	Grade AA	\$99.50
Grade C	4.15	Grade A	94.50
Elevator operators:		Grade B	92.00
Grade A	4.07	Grade C	89.50
Grade B	3.97		
Grade C	3.82		<i>Per hour</i>
Grade D	3.67	Store attendants and chauffeurs:	
Watchmen, piers (elevators and transfers):		Entering rate	\$0.45
Grade A	4.82	Rate after 1 year's experience	.51
Grade B	4.32	Rate after 2 years' experience	.56
Grade C	4.12	Store attendants (shipper and receiver):	
Grade D	4.02	Grade A	.575
Grade E	3.92	Transfer bridgemen: Grade A	.60
Watchmen (shop):		Motor truck drivers (industrial): Grade A	.46
Grade A	4.62	Scrap sorters: Grade A	.47
Grade B	4.42	Locaters: Grade A	.57
Grade C	4.22	Loaders:	
Grade D	3.92	Grade A	.57
Grade E	3.72	Grade B	.55
Watchmen (station, office and freight stations other than transfers):		Stowers:	
Grade A	4.32	Grade A	.57
Grade B	4.22	Grade B	.55
Grade C	4.12	Grade C	.44
Grade D	4.02	Coopers:	
Grade E	3.92	Grade A	.58
Station baggagemen:		Grade B	.56
Grade A, 2 years' experience	4.85	Sealers: Grade A	.57
Grade A, 1 years' experience	4.52	Truckers:	
Grade B, 3 years' experience	4.67	Grade A	.55
Grade B, 2 years' experience	4.45	Grade B	.53
Grade B, entering rate	4.35	Grade C	.50
Grade C	4.40	Grade D	.42
Grade D	4.20	Tractor operators (piers, freight stations and transfers):	
Janitors:		Grade A	.57
Grade A	3.98	Grade B	.55
Grade B	3.88	Tractor operators' helpers (piers, freight stations and transfers):	
Grade C	3.68	Grade A	.55
Grade D	3.48	Grade B	.53
Grade E	3.28	Tractor operators (shops and storehouses):	
Matrons:		Grade A	.55
Grade A	3.56	Laborers (includes all laborers comprehended under the miscellaneous forces regulations):	
Grade B	3.46	Entering rate	.40
Grade C	3.36	After 306 days' work in continuous service	.41
Grade D	3.26	After 612 days' work in continuous service	.42
Maids:		After 918 days' work in continuous service	.43
Grade A	3.16		
Grade B	3.06		
Rest-room attendants:			
Grade A	3.92		
Grade B	3.82		
Grade C	3.62		
Messengers:			
Grade A	2.60		
Grade B	2.35		
Grade C	2.10		
Post-office attendants: Grade A	3.78		
First-aid attendants: Grade A	5.03		
Blue printers: Grade A	4.28		

Farm Wage and Labor Situation on July 1, 1929

THE index of the general level of farm wages on July 1, 1929—173—was 6 points higher than on April 1, 1929, and 3 points higher than on July 1, 1928, according to figures issued by the United States Department of Agriculture. Wage increases from July, 1928, to July, 1929, were general throughout the country except in the South Atlantic States, where the rates were slightly lower. The higher level of farm wages on July 1, 1929, is probably due to a smaller supply and a somewhat greater demand for labor, the supply being reported as 101.7 per cent of the demand as compared with 105.5 per cent on July 1, 1928. The smaller supply is said to be due to the higher volume of industrial employment.

Table 1 shows average farm wage rates and index numbers from 1910 to 1928 by years and for specified months from 1923 to July, 1929. The wage rates are separated into daily and monthly rates with board and without board.

TABLE 1.—AVERAGE FARM WAGE RATES AND INDEX NUMBERS, 1910 TO JULY, 1929

Year	Average yearly farm wage ¹				Index numbers of farm wages (1910-1914 = 100)
	Per month		Per day		
	With board	Without board	With board	Without board	
1910.....	\$19.58	\$28.04	\$1.07	\$1.40	97
1911.....	19.85	28.33	1.07	1.40	97
1912.....	20.46	29.14	1.12	1.44	101
1913.....	21.27	30.21	1.15	1.48	104
1914.....	20.90	29.72	1.11	1.44	101
1915.....	21.08	29.97	1.12	1.45	102
1916.....	23.04	32.58	1.24	1.60	112
1917.....	28.64	40.19	1.56	2.00	140
1918.....	35.12	49.13	2.05	2.61	176
1919.....	40.14	56.77	2.44	3.10	206
1920.....	47.24	65.05	2.84	3.56	239
1921.....	30.25	43.58	1.66	2.17	150
1922.....	29.31	42.09	1.64	2.14	146
1923.....	33.09	46.74	1.91	2.45	166
1924.....	33.34	47.22	1.88	2.44	166
1925.....	33.88	47.80	1.89	2.46	168
1926.....	34.86	48.86	1.91	2.49	171
1927.....	34.58	48.63	1.90	2.46	170
1928.....	34.66	48.65	1.88	2.43	169
1929:					
January.....	27.87	40.50	1.46	1.97	137
April.....	30.90	44.41	1.55	2.09	143
July.....	34.64	48.61	1.84	2.44	169
October.....	34.56	48.42	2.02	2.58	174
1924:					
January.....	31.55	45.53	1.79	2.38	159
April.....	33.57	47.38	1.77	2.34	163
July.....	34.34	48.02	1.87	2.43	168
October.....	34.38	48.46	1.93	2.51	171
1925:					
January.....	31.07	45.04	1.74	2.31	156
April.....	33.86	47.40	1.77	2.33	163
July.....	34.94	48.55	1.89	2.44	170
October.....	34.91	48.99	1.95	2.53	173
1926:					
January.....	31.82	46.26	1.76	2.33	159
April.....	34.38	48.40	1.78	2.35	166
July.....	36.10	49.89	1.91	2.48	174
October.....	36.00	50.10	1.97	2.55	176

¹ Yearly averages are from reports by crop reporters, giving average wages for the year in their localities, except for 1924-1928, when the wage rates per month are a straight average of quarterly rates, April, July, October of the current year, and January of the following year; and the wage rates per day are a weighted average of quarterly rates.

TABLE 1.—AVERAGE FARM WAGE RATES AND INDEX NUMBER, 1910 TO JULY, 1929—
Continued

Year	Average yearly farm wage				Index number of farm wages (1910-1914 = 100)
	Per month		Per day		
	With board	Without board	With board	Without board	
1927:					
January.....	\$32.94	\$47.07	\$1.79	\$2.36	162
April.....	34.53	48.47	1.78	2.37	166
July.....	35.59	49.52	1.89	2.44	172
October.....	35.68	49.77	1.96	2.51	175
1928:					
January.....	32.50	46.75	1.76	2.34	161
April.....	34.46	48.44	1.78	2.34	166
July.....	35.39	49.32	1.84	2.39	170
October.....	35.75	49.60	1.96	2.51	175
1929:					
January.....	33.04	47.24	1.78	2.34	162
April.....	34.68	49.00	1.79	2.34	167
July.....	36.08	50.53	1.89	2.43	173

Average daily and monthly farm wage rates, with board and without board, in the different States and geographic divisions, are given in Table 2 for the months of July, 1928, and July, 1929:

TABLE 2.—AVERAGE WAGES PAID TO HIRED FARM LABOR, BY STATES AND DIVISIONS, JULY, 1928 AND 1929

State and division	Per month				Per day			
	With board		Without board		With board		Without board	
	1928	1929	1928	1929	1928	1929	1928	1929
Maine.....	\$47.00	\$50.25	\$66.00	\$66.50	\$2.50	\$2.45	\$3.10	\$3.10
New Hampshire.....	48.00	53.50	72.00	81.00	2.50	2.70	3.35	3.60
Vermont.....	50.00	51.25	70.00	73.25	2.55	2.60	3.25	3.35
Massachusetts.....	50.00	53.75	81.00	84.00	3.05	2.95	3.70	3.80
Rhode Island.....	53.00	54.00	85.00	86.75	3.00	2.95	3.80	3.85
Connecticut.....	54.00	54.75	81.00	84.00	3.00	2.85	3.80	3.85
New York.....	49.50	50.25	70.00	72.25	2.85	3.05	3.65	3.85
New Jersey.....	49.00	50.50	75.00	72.50	2.85	2.75	3.55	3.55
Pennsylvania.....	39.25	41.00	58.75	62.00	2.45	2.55	3.25	3.25
North Atlantic.....	46.71	48.35	68.60	70.97	2.71	2.79	3.48	3.57
Ohio.....	39.00	38.75	54.50	54.00	2.40	2.40	3.05	3.05
Indiana.....	37.00	38.75	49.00	51.75	2.00	2.20	2.60	2.75
Illinois.....	42.75	43.25	53.50	56.00	2.25	2.30	2.85	2.90
Michigan.....	43.00	43.75	60.00	61.50	2.60	2.65	3.30	3.35
Wisconsin.....	48.50	50.50	65.75	69.50	2.45	2.55	3.10	3.25
Minnesota.....	45.50	47.75	61.25	65.00	2.25	2.40	3.05	3.20
Iowa.....	48.25	49.00	58.50	60.25	2.45	2.55	3.10	3.15
Missouri.....	33.50	34.25	45.00	45.25	1.60	1.75	2.15	2.20
North Dakota.....	47.25	48.25	65.00	66.50	2.35	2.45	3.30	3.25
South Dakota.....	48.00	49.50	65.25	67.00	2.40	2.40	3.30	3.30
Nebraska.....	43.75	45.25	57.50	60.00	2.40	2.45	3.10	3.35
Kansas.....	37.50	39.25	52.25	55.00	2.40	2.65	3.05	3.35
North Central.....	42.29	43.40	56.18	58.18	2.26	2.36	2.93	3.02
Delaware.....	34.50	37.00	50.00	55.50	2.30	2.25	2.75	2.75
Maryland.....	36.00	36.00	52.50	52.25	2.00	2.10	2.65	2.75
Virginia.....	29.00	30.00	41.25	43.00	1.55	1.55	2.20	2.05
West Virginia.....	33.25	32.50	47.75	46.50	1.70	1.65	2.30	2.30
North Carolina.....	27.50	26.75	39.00	38.25	1.45	1.40	1.85	1.80
South Carolina.....	20.75	19.00	28.50	26.75	1.00	1.00	1.25	1.20
Georgia.....	20.50	19.75	29.00	28.00	1.05	1.00	1.35	1.30
Florida.....	22.75	24.50	36.25	36.50	1.25	1.20	1.70	1.65
South Atlantic.....	25.38	24.98	36.22	35.77	1.33	1.31	1.75	1.70

TABLE 2.—AVERAGE WAGES PAID TO HIRED FARM LABOR, BY STATES AND DIVISIONS, JULY, 1928 AND 1929—Continued

State and division	Per month				Per day			
	With board		Without board		With board		Without board	
	1928	1929	1928	1929	1928	1929	1928	1929
Kentucky.....	\$28.25	\$27.00	\$39.25	\$38.25	\$1.40	\$1.40	\$1.80	\$1.80
Tennessee.....	24.50	24.00	34.00	33.50	1.15	1.15	1.50	1.55
Alabama.....	22.00	22.00	31.00	30.00	1.10	1.10	1.40	1.40
Mississippi.....	23.00	23.25	31.75	32.75	1.20	1.15	1.60	1.55
Arkansas.....	25.00	26.50	35.00	38.00	1.20	1.30	1.50	1.65
Louisiana.....	23.50	26.50	34.50	39.75	1.15	1.20	1.45	1.50
Oklahoma.....	30.00	29.00	43.00	41.50	1.80	1.75	2.20	2.05
Texas.....	29.00	30.00	42.00	42.50	1.40	1.55	1.85	1.95
South Central.....	25.99	26.39	36.86	37.44	1.30	1.34	1.68	1.71
Montana.....	58.00	57.50	78.50	78.75	2.75	2.85	3.60	3.70
Idaho.....	55.75	60.25	75.75	81.75	2.65	2.85	3.45	3.50
Wyoming.....	51.25	51.50	70.75	75.50	2.40	2.60	3.20	3.45
Colorado.....	41.00	42.50	62.00	63.75	2.20	2.30	3.00	3.05
New Mexico.....	35.00	36.00	51.00	52.00	1.60	1.80	2.20	2.20
Arizona.....	45.00	55.00	65.00	71.00	1.95	2.15	2.50	2.75
Utah.....	57.50	63.50	76.00	83.75	2.50	2.60	3.20	3.25
Nevada.....	64.00	60.25	80.00	83.00	2.15	2.50	3.00	3.25
Washington.....	50.75	51.75	74.00	78.25	2.60	2.65	3.40	3.65
Oregon.....	48.50	51.25	69.50	74.50	2.50	2.45	3.20	3.20
California.....	62.00	62.00	88.00	90.00	2.60	2.60	3.60	3.55
Far Western.....	53.64	55.28	75.99	79.11	2.44	2.51	3.28	3.32
United States.....	35.39	36.08	49.32	50.53	1.84	1.89	2.39	2.43

The situation as regards the farm labor supply and demand on July 1, 1929, as compared with July 1, 1928, is shown in Table 3:

TABLE 3.—FARM LABOR SUPPLY AND DEMAND, JULY 1, 1928 AND 1929

Geographical division	Supply—per cent of normal		Demand—per cent of normal		Supply as percent-age of demand	
	1928	1929	1928	1929	1928	1929
United States.....	92.8	92.3	88.0	90.8	105.5	101.7
North Atlantic.....	92.3	89.1	88.4	91.4	104.4	97.4
North Central.....	95.9	93.0	88.7	92.0	108.1	101.1
South Atlantic.....	88.4	91.2	89.2	89.1	99.1	102.4
South Central.....	90.7	91.4	85.1	90.7	106.6	100.7
Far Western.....	99.5	98.6	92.3	90.2	107.7	109.3

Hours of Labor in Illinois Factories, April, 1929

A QUARTERLY study of working hours in manufacturing establishments of the State has been initiated by the Illinois Department of Labor, covering both full-time (normal) hours and actual hours worked per day and per week.

Full-time hours are the regular hours of operation for an establishment, and represent the possible hours of work for its employees under normal conditions. Actual hours are the average hours actually worked by its employees, and may be more than the full-time hours, on account of overtime work, but is usually less, due to sickness, injury, or lay-offs for other causes.

Tabulations published in the Labor Bulletin for June, 1929, show that in April, 1929, in 800 establishments, employing 125,009 male workers, nearly one-third of these were employed in establishments having a normal 8-hour working-day. Approximately another third was employed in establishments with a normal nine-hour working-day. Only 3.2 per cent were employed in establishments where more than 10 hours prevailed. Full-time hours alone were presented for male employees.

Tabulations for female workers covered full-time hours for 392 establishments, with 25,724 employees, and actual hours worked for 371 establishments, with 22,601 employees. They show that nearly 40 per cent were employed in establishments having a normal 9-hour working day. More than one-fourth were employed in establishments with a normal 8-hour working-day, while nearly another fourth had a normal working-day ranging between 8 and 9 hours.

FULL-TIME AND ACTUAL WEEKLY HOURS OF LABOR IN ILLINOIS FACTORIES,
-APRIL, 1929

Hours per week	Number of employees working specified hours per—		
	Normal week		Actual week
	Males	Females	Females
Under 44.....	1, 129	137	2, 536
44.....	10, 555	3, 874	2, 459
Over 44 and under 48.....	2, 872	3, 551	2, 465
48.....	33, 078	4, 419	3, 512
Over 48 and under 50.....	8, 779	2, 534	2, 281
50.....	29, 321	6, 733	3, 031
Over 50 and under 56.....	21, 176	4, 177	5, 796
56.....	8, 499	8	8
Over 56 and under 60.....	1, 748	79	7
60 and over.....	6, 771	193	220
Not reported.....	1, 081	19	286
Total employees.....	125, 009	25, 724	22, 601

Wage Earners and Per Capita Earnings in Manufacturing in
Massachusetts, 1919 to 1927

THE average number of wage earners and average per capita earnings in the leading manufacturing industries of Massachusetts for the years 1919 to 1927 are given in the following table. The data are taken from a statement issued by the Department of Labor and Industries of Massachusetts. Similar figures for all industries from 1913 to 1927 were published in the March, 1929, Labor Review, the present table supplementing the earlier one by giving data for 15 individual industries.

WAGES AND HOURS OF LABOR

175

WAGE EARNERS AND AVERAGE EARNINGS PER WAGE EARNER IN SPECIFIED INDUSTRIES IN MASSACHUSETTS, 1919 TO 1927

(From Press Release No. 44, Apr. 2, 1929, Massachusetts Department of Labor and Industries)

Year	All industries		Boots and shoes (including boot and shoe cut stock and find- ings)		Cotton goods (excluding cot- ton small wares)		Woolen and worsted goods	
	Wage earners	Per capita earn- ings	Wage earners	Per capita earn- ings	Wage earners	Per capita earn- ings	Wage earners	Per capita earn- ings
1919.....	713,836	\$1,074	90,693	\$1,098	122,499	\$897	53,864	\$1,054
1920.....	695,832	1,281	77,401	1,227	113,145	1,157	51,689	1,293
1921.....	579,071	1,108	70,897	1,178	106,337	908	56,644	1,116
1922.....	612,682	1,107	77,700	1,135	111,165	927	55,886	1,099
1923.....	667,443	1,198	76,746	1,184	113,707	1,012	64,842	1,175
1924.....	589,364	1,208	69,505	1,147	89,095	974	54,277	1,208
1925.....	591,438	1,211	64,396	1,141	96,182	955	54,876	1,183
1926.....	602,343	1,226	67,544	1,176	91,466	972	54,638	1,134
1927.....	578,068	1,221	63,749	1,163	90,875	969	51,064	1,137
	Electrical ma- chinery, appa- ratus, and sup- plies		Printing and publishing		Rubber goods (including tires and inner tubes)		Foundry and machine-shop products	
	Wage earners	Per capita earn- ings	Wage earners	Per capita earn- ings	Wage earners	Per capita earn- ings	Wage earners	Per capita earn- ings
1919.....	23,889	\$1,157	13,661	\$1,205	9,600	\$1,202	27,801	\$1,321
1920.....	28,561	1,341	12,969	1,484	8,130	1,449	34,473	1,522
1921.....	17,635	1,154	12,764	1,555	7,847	1,148	20,021	1,336
1922.....	19,064	1,308	13,466	1,563	10,197	1,169	20,837	1,310
1923.....	26,350	1,309	14,238	1,636	11,388	1,291	24,660	1,471
1924.....	24,523	1,355	13,908	1,704	10,406	1,287	22,414	1,449
1925.....	25,065	1,401	14,231	1,729	10,740	1,295	19,541	1,480
1926.....	27,899	1,403	14,713	1,729	10,444	1,307	20,419	1,511
1927.....	24,759	1,369	14,382	1,772	10,364	1,283	19,898	1,511
	Paper and wood pulp		Dyeing and finishing textiles		Leather, tanned, curried, and finished		Clothing, men's and women's	
	Wage earners	Per capita earn- ings	Wage earners	Per capita earn- ings	Wage earners	Per capita earn- ings	Wage earners	Per capita earn- ings
1919.....	12,960	\$1,130	12,321	\$993	15,180	\$1,266	13,127	\$977
1920.....	15,215	1,422	16,292	1,158	12,447	1,439	12,129	1,183
1921.....	12,427	1,013	13,318	1,062	9,038	1,260	10,444	1,074
1922.....	13,490	1,112	13,332	1,055	10,813	1,230	11,519	1,108
1923.....	13,324	1,282	14,074	1,144	11,437	1,341	12,727	1,177
1924.....	13,423	1,270	12,764	1,108	11,010	1,365	11,549	1,161
1925.....	12,915	1,272	13,872	1,161	10,438	1,358	10,665	1,127
1926.....	13,205	1,323	13,772	1,160	10,241	1,369	12,115	1,177
1927.....	12,368	1,286	13,826	1,174	10,768	1,355	13,163	1,150
	Slaughtering and meat pack- ing, wholesale		Boots and shoes, rubber		Confectionery		Textile machinery and parts	
	Wage earners	Per capita earn- ings	Wage earners	Per capita earn- ings	Wage earners	Per capita earn- ings	Wage earners	Per capita earn- ings
1919.....	4,307	\$1,252	13,062	\$977	10,753	\$699	17,413	\$1,189
1920.....	3,436	1,417	14,883	1,273	9,836	876	19,686	1,443
1921.....	2,986	1,272	9,347	949	8,202	798	16,479	1,264
1922.....	3,153	1,107	10,372	905	8,006	833	14,846	1,164
1923.....	3,651	1,261	12,528	1,169	8,805	849	18,668	1,303
1924.....	3,506	1,335	9,263	1,037	7,899	944	14,666	1,251
1925.....	3,292	1,252	11,389	1,188	7,625	886	13,687	1,298
1926.....	3,000	1,253	12,774	1,058	8,372	893	12,623	1,330
1927.....	3,191	1,293	12,081	1,281	8,373	865	12,009	1,352

The noticeable feature of this table is that while there has been a shrinkage in the number of wage earners employed in many of the industries, the wage earners who retained their employment had no very appreciable change in the amount of their annual earnings. In all industries combined the per capita earnings were 12 per cent higher in 1927 than in 1919 and 4.9 per cent lower than in 1920, the peak year. In cotton-goods manufacturing per capita earnings increased 8 per cent as between 1919 and 1927 and decreased 16.2 per cent as compared with 1920. Per capita earnings in woolen and worsted goods manufacturing were not materially changed in the period. The greatest advance in per capita earnings was in printing and publishing, which increased 47.1 per cent.

Wages in Copenhagen and Frederiksberg, Denmark, 1928

THE table below shows hourly wages of skilled and unskilled workers in certain industries and occupations in the cities of Copenhagen and Frederiksberg, Denmark, in July, 1928:²

WAGES IN SPECIFIED OCCUPATIONS AND INDUSTRIES OF COPENHAGEN AND
FREDERIKSBERG, DENMARK, JULY, 1928

[Øre at par=0.268 cent]

Occupation or industry group	Number of workers	Wages per hour	
		Øre	U. S. cur- rency
Skilled workers, males.....	20,425	172	\$0.46
Unskilled workers, males.....	18,192	135	.36
Total males.....	38,617	154	.41
Females.....	14,529	88	.24
Total, males and females.....	53,146	137	.37
Skilled workers:			
Bakers.....	755	154	.41
Cigar makers.....	808	145	.39
Tailors, custom.....	102	155	.42
Tailors, ready-made clothing.....	118	159	.43
Shoemakers, journeymen.....	17	145	.39
Tanners.....	70	170	.46
Sheet-metal workers.....	264	177	.47
Carpenters, building.....	817	165	.44
Glaziers.....	110	138	.37
Painters.....	1,134	182	.49
Masons.....	1,246	228	.61
Carpenters.....	678	200	.54
Coopers.....	108	162	.43
Cabinetmakers.....	418	153	.41
Woodworkers.....	336	145	.39
Harness makers and upholsterers.....	153	161	.43
Pavers.....	52	259	.60
Stonecutters.....	82	175	.47
Electricians.....	545	152	.41
Molders.....	443	194	.52
Brass workers.....	112	153	.41
Blacksmiths and machinists.....	6,304	168	.45
Typographers.....	1,818	180	.48
Bookbinders.....	445	180	.48

² Denmark (Copenhagen), Statistiske Kontor. Statistisk Aarbog for Kobenhavn, Frederiksberg og Gjentofte Kommune, 1928. Copenhagen, 1929, p. 133.

WAGES IN SPECIFIED OCCUPATIONS AND INDUSTRIES OF COPENHAGEN AND
FREDERIKSBURG, DENMARK, JULY, 1928—Continued

Occupation or industry group	Number of workers	Wages per hour	
		Øre	U. S. cur- rency
Unskilled workers:			
Brewery workers, male	1,769	134	\$0.36
Brewery workers, female	817	97	.26
Tobacco workers, male	132	161	.43
Tobacco workers, female	1,315	103	.28
Textile workers, male	492	123	.33
Textile workers, female	1,631	86	.23
Garment workers, female	1,301	78	.21
Shoe workers, male	713	152	.41
Shoe workers, female	725	88	.24
Building laborers	881	182	.49
Forestry workers	278	121	.32
Earth and concrete workers	1,871	155	.42
Pottery workers, female	413	102	.27
Ironworkers, male	4,000	132	.35
Ironworkers, female	2,333	89	.24
Printing-office workers, female	356	88	.24
Bookbinders, female	630	93	.25
Paper-mill workers, male	63	120	.32
Paper-mill workers, female	250	81	.22

Wages and Working Conditions in the Silk-Dyeing Industry in
Basel, Switzerland

A REPORT from Calvin M. Hitch, American consul at Basel, dated June 17, 1929, gives the average hourly wages paid to employees in dye works in that city.

The silk-dyeing and finishing industry has been an important industry of Basel for many years, and the plants located there not only handle a large part of the total silk-dyeing work of Switzerland, but yarns and cloth are dyed and finished for customers in other countries. It is estimated that about 3,000 workers are employed by the three principal dyeing and finishing companies of the city.

Much of the work requires skill and young men are required to serve apprenticeships, usually from the age of 14 to 18 years, before they can qualify as skilled dyers or finishers.

The following wages were in effect in June, 1929, for different classes of workers:

AVERAGE HOURLY WAGES OF SILK DYERS AND FINISHERS IN BASEL, JUNE, 1929

[Exchange rate of franc=19.3 cents]

Occupation	Hourly wages			
	Minimum		Maximum	
	Francs	Cents	Francs	Cents
Skilled workers:				
Under 20 years	0.80	15.4	2.00	38.6
20 years and over	.95	18.3	2.50	48.2
Assistants:				
18 and under 20 years	.65	12.5	1.50	29.0
20 years and over	.75	14.5	1.80	34.7
Apprentices:				
14 and under 16 years	.35	6.8	.85	16.4
16 and under 18 years	.50	9.7	1.10	21.2

The hours of work range from 48 to 50 per week and yearly vacations with pay are granted. The vacation for the first year of service is usually three days, increasing by two days for each additional year until a maximum of four weeks is reached. Pensions and insurance against sickness, accident, and death are provided, the insurance being paid for by joint contributions of the employers and workers.

Wages and Hours of Labor in Ukraine, Soviet Union, 1928

WAGES and hours of labor in the principal industries of Ukraine, Soviet Union, in 1928, from the Statistical Chronicle³ published by the Central Statistical Office of the Ukraine Socialist Soviet Republic, are given below.

Table 1 shows monthly, daily, and hourly wages and daily hours of labor in the principal industries in 1928:

TABLE 1.—AVERAGE HOURS OF LABOR AND WAGES IN SPECIFIED INDUSTRIES IN UKRAINE, 1928

[Chervonetz ruble at par=51.5 cents]

Industry	Average hours per day	Average wages					
		Per month		Per day		Per hour	
		Chervonetz ruble	U. S. currency	Chervonetz ruble	U. S. currency	Chervonetz ruble	U. S. currency
Extraction and manufacture of minerals	7.47	62.87	\$32.38	2.54	\$1.31	0.34	\$0.175
Ceramic	7.63	64.35	33.14	2.50	1.29	.33	.170
Porcelain-faience	7.57	54.50	28.11	2.46	1.27	.32	.165
Cement	7.54	61.50	31.67	2.20	1.13	.31	.160
Mining	7.42	69.81	35.95	2.75	1.42	.38	.196
Coal	7.29	63.42	32.66	2.57	1.32	.36	.185
Iron	7.55	77.49	39.91	3.28	1.69	.44	.227
Metallurgy	7.63	80.43	41.42	2.99	1.54	.41	.211
Salt	7.77	73.58	37.89	2.63	1.35	.35	.180
Metal working	7.42	82.22	42.34	3.34	1.72	.46	.237
Machine construction	7.47	93.96	48.39	3.88	2.00	.53	.273
Agricultural machinery	7.49	95.86	49.37	4.07	2.10	.55	.283
Other machinery	7.46	93.23	48.01	3.80	1.96	.52	.268
Wood working	7.66	60.26	31.03	2.55	1.31	.34	.175
Chemical products	7.65	80.19	41.30	2.97	1.53	.40	.206
Food and confectionery	7.56	65.55	33.76	2.51	1.29	.34	.175
Beet-sugar refining	7.66	56.25	28.97	1.95	1.00	.27	.139
Confectionery	7.53	79.65	41.02	3.41	1.76	.45	.232
Oil (vegetable)	7.79	72.11	37.14	2.83	1.46	.38	.196
Bread and macaroni	7.68	91.35	47.05	3.47	1.79	.48	.247
Tobacco	6.89	56.34	29.02	2.59	1.33	.38	.196
Leather	7.56	94.48	48.66	4.10	2.11	.54	.278
Wool	7.25	66.60	34.30	2.72	1.40	.38	.196
Hemp and other textiles	7.10	52.62	27.10	2.24	1.15	.32	.165
Clothing and toilet articles	7.40	72.58	37.38	3.15	1.62	.43	.221
Paper	7.58	55.76	28.72	2.19	1.13	.30	.155
Polygraphy	7.34	79.19	40.78	3.31	1.70	.46	.237
Power plants	7.78	86.47	44.53	3.36	1.73	.46	.237
Electrical	7.86	91.42	47.08	3.42	1.76	.47	.242
Water	7.59	74.66	38.45	3.23	1.66	.43	.221
Total	7.45	72.61	37.39	3.00	1.55	.40	.206

³ Ukraine, Soviet Union (U. S. S. R.). Central Statistical Office. Statistichna Khronika, No. 57 (126), 1929, p. 4; No. 55 (122), 1929, pp. 7 and 14.

Average actual daily and monthly earnings of farm hands in Ukraine for 1928 are shown in Table 2:

TABLE 2.—AVERAGE ACTUAL EARNINGS OF FARM HANDS IN UKRAINE IN 1928
[Chervonetz ruble at par = 51.5 cents]

Kind and sex of workers	Number of workers	Number of days worked in month	Average actual earnings				Per cent of actual earnings		
			Per day		Per month		Regular	Over-time	In kind
			Chervonetz rubles	U. S. currency	Chervonetz rubles	U. S. currency			
Permanent:									
Men.....	773	25.1	1.05	\$0.54	30.90	\$15.91	93.5	2.7	3.8
Women.....	57	23.8	.92	.47	24.22	12.47	93.8	5.7	.5
Minors.....	36	25.0	.63	.32	16.27	8.38	99.6		.4
Total, permanent.....	866	25.0	1.02	.53	29.85	15.37	93.6	2.8	3.6
Seasonal:									
Men.....	743	24.5	.95	.49	26.70	13.75	97.2	1.6	1.2
Women.....	214	24.1	.94	.48	25.28	13.02	98.8	1.0	.2
Minors.....	60	23.8	.96	.49	24.69	12.72	98.8	.2	1.0
Total, seasonal.....	1,017	24.4	.95	.49	26.28	13.53	97.6	1.4	1.0
Grand total.....	1,883	24.7	.98	.50	27.92	14.38	95.6	2.1	2.3

Table 3 shows hours of labor per day of farm hands in Ukraine in 1927:

TABLE 3.—HOURS OF LABOR PER DAY OF FARM HANDS IN UKRAINE

Group	Number of workers	Hours of labor per day			
		Winter	Spring	Summer	Fall
Men.....	296	8.2	10.7	12.5	10.4
Boys.....	220	7.5	11.0	12.6	10.3
Women.....	404	8.7	10.9	12.7	10.5
Girls.....	361	8.7	11.0	12.4	10.3

LABOR AWARDS AND DECISIONS

Arbitration Awards

Building and Common Laborers—Denver, Colo.

ON THE 18th of July 1929, the Industrial Commission of Colorado gave a decision in the case of the Building and Common Laborers' Union, No. 340, against the contractors of the city and county of Denver.

The representative of the union gave notice on June 24, 1929, to the commission and to the contractors of Denver of a demand for an increase in wages and a change in working conditions.

At a hearing held in Denver, July 13, 1929, the employees contended that they were entitled to a wage of \$5 for an eight-hour day, time and one-half for overtime and double time for Sundays and holidays, and recognition of their union. The employers who testified did not oppose an increase to \$5 per day, but declared that any increase in wages should not go into effect where contracts had already been made and let. Some of the employers contended they did not care to recognize the union.

The findings and award of the Industrial Commission of Colorado follow:

From the evidence submitted by both sides it appears that common laborers in the city of Denver receive from 30 to 50 cents per hour and are employed from 8 to 12 hours per day; that they are employed on an average of only 4 days per week. In the opinion of the commission this is not a living wage. A large majority of these employees are unorganized and do not belong to any union.

Therefore, it is the decision and award of the commission that the demands of the said union for \$5 per day and for an 8-hour day are reasonable and should be granted by the employers, and that the employers should recognize the right of the employees to organize and bargain collectively. We are also of the opinion that time and one-half should be allowed for overtime and for Sundays and holidays. There should be no increase, however, in wages, nor should the time and one-half for overtime be imposed or demanded until the completion of the contracts that had been let prior to the date the above notice was received by the commission. We believe that this is only fair to the employer who has taken and figured a contract under wages and conditions prevailing at that time.

Railway Clerks—Chicago & North Western Railway Co.

A BOARD OF ARBITRATION created by agreement of March 21, 1927, for the purpose of deciding a wage dispute between the Brotherhood of Railway and Steamship Clerks, Freight Handlers, Express and Station Employees and the Chicago & North Western Railway Co., on November 4, 1927, made an award granting increases

in rates of pay of 7 per cent to clerical employees and of 4 per cent to the freight handlers of the carrier.¹

Subsequently a dispute arose as to the interpretation of the award as applied to the freight handlers and check clerks at the Sixteenth Street and the Fortieth Street stations, who are working on a tonnage basis. The brotherhood contended that the arbitration award was intended to apply to the tonnage rates. The carrier took the opposite position. The board of arbitration was reconvened in Chicago on June 24, 1929, and upon a full hearing and consideration of the questions submitted, agreed upon the following interpretation of the award:

It was the intent of the decision of the board of arbitration, dated November 4, 1927, to add 7 per cent increase to the tonnage rates of pay of the freight house checkers employed at Sixteenth and Fortieth Street stations of the carrier in effect October 31, 1927, * * * and the award of the board shall be so applied.

It was the intent of the decision of the board of arbitration, dated November 4, 1927, to add 4 per cent increase to the tonnage rates of pay of the freight house callers, loaders, stevedores and freight handlers employed at Sixteenth and Fortieth Street stations of the carrier in effect October 31, 1927, * * * and the award of the board shall be so applied.

The increase in the tonnage rates of pay of the employees are retro-active to November 1, 1927.

¹ See Labor Review, January, 1928, p. 195.

STABILITY OF EMPLOYMENT

Guaranty of Minimum Annual Income to Employees by Paper Company

THE Consolidated Water Power & Paper Co. of Wisconsin and Ontario, Canada, has adopted a plan under which it guarantees its employees a continuous annual income whether or not the plants shut down.

The plan which is used in the company's plants at Wisconsin Rapids and Biron, Wis., and Port Arthur, Ontario, was worked out by company officials and union leaders. Employees of the company who are members of the International Brotherhood of Paper Makers, the International Brotherhood of Electrical Workers, and the International Brotherhood of Pulp, Sulphite, and Paper Mill Workers are affected by the arrangement. Each man who has worked for the company for more than a year is assured of a salary equal to about one-third of his regular wages whenever he is forced out of work by a shutdown.

The following is the plan as described in a statement issued by the company:

Our schedule of unemployment compensation, effective February 7, 1929, provides for remuneration to permanent employees who are compelled to remain idle due to curtailed operations.

The highest amount paid amounts to \$75 per month, which applies to positions involving the highest skill and wages. The rate of compensation decreases from this figure in proportion to wages. Common labor with more than three years' service is paid \$30 per month, and one to three years' service \$20 per month.

In the event of part-time work the employees receive the difference between the compensation rate and actual money earned. In other words, the unemployment compensation constitutes a guaranty of a certain specified income.

Before receiving check the employee signs an affidavit showing amount of money earned elsewhere, if any.

Full arrangements for this plan were made in conference with local labor union officials representing the three organizations with whom we deal regularly. These are the International Brotherhood of Paper Makers, International Brotherhood of Pulp, Sulphite, and Paper Mill Workers, and International Brotherhood of Electricians. We have transacted business with our employees on this basis for 10 years.

The unions agreed to assist in every possible way in the enforcement of regulations covering the unemployment insurance plan. They also gave their advice and assistance in devising the schedule.

The system is not considered as a permanent policy; however, it will remain in force for the present. A permanent plan may be worked out later; however, no definite steps have been taken in that direction. The compensation payments are made by the company, no contributions being made by employees.

Guaranty of Steady Employment to Minimum Number of Shop Employees by Railway Company

AN interesting plan for the stabilization of employment is now in operation for the second year on the Seaboard Air Line Railway.

Early in December, 1927, the Shop Craft Federation and the management of the Seaboard Air Line Railway Co. agreed upon a plan to stabilize employment, which guaranteed steady employment to a minimum of 2,170 shop men for the period of one year, beginning January 1, 1928. This agreement was renewed for the year 1929, with the minimum number of shop employees increased to 2,235.

Under the old method of handling shop employees no man was guaranteed employment for a period of more than five days, the necessary notice to be given when reducing the force. Under the new plan 2,235 mechanics, apprentices, helpers, and coach cleaners are assured of steady employment for the entire year of 1929. The company is granted the privilege of increasing its forces above this figure at any time.

EMPLOYMENT CONDITIONS AND RELIEF

Cincinnati Employment Agencies

IN THE winter and spring of 1928 an investigation of employment agencies in Cincinnati was made by the Consumers' League of that city, the results of the survey being embodied in a report¹ from which the following data are taken.

In Cincinnati, as in other municipalities, there are two general types of employment agencies—commercial, or fee charging, and those making placements without charge. Some of both types of offices endeavor to place all groups of workers. Other bureaus, however, limit their efforts to either white or negro applicants and to one or more of the following classes of applicants: Unskilled laborers, semiskilled and skilled factory workers, restaurant and domestic help, professional and clerical employees, minors, the physically handicapped, and persons affiliated with particular organizations.

The information presented in the report was secured through interviews with managers of fee-charging employment offices, with heads of free offices and organizations making placements, and with employers in a representative group of industries and business lines, and through the personal experience of employment bureau applicants and of other persons who had dealings with employment offices in some other capacity. Although the study is not exhaustive, its findings cover all commercial employment agencies that were in operation in Cincinnati in the spring of 1928, and also "as fully as possible every type of agency existing in the city which placed either adult or junior workers without charging a fee."

In the period covered by the study there were 21 fee-charging employment agencies in Cincinnati.² As reported by these offices, 3 made all types of placements, while 5 secured positions for unskilled laborers only, 4 for restaurant and domestic help, 4 for clerical employees, 1 for teachers, and 4 for singers, dancers, and other entertainers.

Agencies Placing Unskilled Labor

Fee-charging agencies.—There were eight fee-charging agencies placing common or unskilled laborers, including three which served all types of applicants. All eight offices were in the downtown section of the city and easily accessible to the type of workers they placed. Only one of these agencies had a predominant negro patron-

¹ Consumers' League of Cincinnati. Employment agencies in Cincinnati, by Frances R. Whitney. Cincinnati, December, 1928.

² Of these 21 agencies, 17 had State licenses and 18 had city licenses. One office for domestic workers had its State and city license revoked in April, 1928. An agency for clerical workers received its license after the information for this study was compiled.

age, the other seven serving both whites and negroes. The manager of one of these offices reported 96,000 applicants annually and only about 5 per cent placed.

Job opportunities for unskilled laborers were secured through solicitation of and orders from local and out-of-town contractors and through watching newspaper advertisements.

One bureau's minimum charge was \$5 in advance of the workers' application to the employer, according to an applicant's report. In the majority of cases the jobless common laborer had to raise at least \$2 before he could make application for a permanent job through the fee-charging employment agencies. The fees for temporary jobs were usually 50 cents in advance, although one or two offices reported that sometimes they made no charge for such placements.

As to whether these agencies refund promptly fees paid in advance if the applicant is not hired by the employer, the report says:

In every case the agency managers claimed that, under these circumstances, the fee was refunded immediately provided the employer's signature to a statement that the man had not been hired appeared on the referral slip. One agency specified that a man must present this slip so countersigned by 4.30 p. m. of the day on which he was sent to the employer, to obtain refund.

Complaints from workers that they have not been able to get back their payments, even though not hired for the job suggested, indicated either that the practice of immediately refunding fees is not uniformly adhered to by all agencies or that this policy is not always carefully explained to the applicant.

Managers of these fee-charging offices placing common labor reported that if a job accepted as permanent was found to be temporary or the job proved to be different from what it was represented to the applicant, the agency endeavored to secure another position for him without extra charge. In the case of a misrepresentation of the job a part of the fee was sometimes returned. The agency retained the fee in cases in which the applicant failed to report for work, left of his own accord, or was fired.

State-city employment service—Common-labor department.—The activities of the common-labor department of the State-city employment service for the calendar year 1927, covering both whites and negroes, were as follows:

APPLICATIONS AND PLACEMENTS OF UNSKILLED AND CASUAL LABOR, STATE CITY EMPLOYMENT SERVICE OF CINCINNATI, 1927

Item	Men	Women	Total
Total number of applicants.....	7,447	8,821	16,268
Requests for help.....	6,944	5,286	12,230
Referred.....	7,022	5,486	12,508
Reported placed.....	6,761	5,253	12,014

While the fee-charging bureaus which handle common-labor jobs place very few women, the female casual workers who applied to the State-city employment service outnumbered the unskilled laborers. As will also be noted, out of 16,268 applicants, 12,014, or nearly three-fourths, were reported placed.

This is a good record, particularly as compared with a statement of a fee-charging agency's manager * * * that out of a possible 96,000 applicants a year, 5 per cent could be placed. On the other hand, if this manager's general

estimate of the number of men applying to him yearly can be relied upon, it is evident that the services of the common-labor department of the State-city service could be extended far beyond those it is now rendering.

Other common-labor agencies.—In Cincinnati unskilled casual workers may also secure jobs through railroad or commissary agencies and the Transient Service Bureau.

The railroad or commissary agencies, when carried on by the railroad companies, charge no fees for placements. Independent commissary companies, however, made an arrangement with the railroads for the deduction of the laborer's placement fee from his first week's pay, the amount so deducted being generally \$2. Sometimes men who sign up for such work do so for the purpose of getting to another section of the country and drop out en route. Such agencies as these, however, have been known to secure fees from unskilled workers and to transport them to places where there were no jobs for them or where the available positions had been filled by the time they reached their destination.

The number of these agencies placing railroad labor fluctuates with the needs of the railroads. In the spring of 1928 the Baltimore & Ohio R. R. was securing workers through its local employment bureau. Two commissary agencies were supplying other railroads with construction labor. Both of these agencies were licensed to charge for local placement work but reported that they "did not bother with the retail business."

The Cincinnati Transient Service Bureau was established in 1924 by the Associated Charities, the Bureau of Catholic Charities, and the Salvation Army, and is operated on funds from the Community Chest. The bureau provides temporary housing for homeless transient men, and also food and lodging.

The staff of the bureau consisted of three men, one representing each of the organizations interested, and an office assistant. Employment obtained through the bureau was usually daywork for social agencies or at the city salvage plants or in residence districts, doing such jobs as cutting grass and putting in coal. Some householders telephoned the bureau regularly for men. When a man earned money in this way he was asked to pay the Transient Service Bureau a small sum in return for board and lodging.

Work of this sort, however, took care of only a few men and for short periods of time. In the majority of instances it was necessary to use the various employment agencies, both public and private, to find steady work for the applicant.

In the year closing October 31, 1926, 4,978 men, of whom 229 were negroes, were handled by the bureau.

When the report under review was being written the operation of the Transient Service Bureau by the city department of public welfare was under consideration.

Agencies Placing Skilled and Semiskilled Workers

Fee-charging agencies.—Six of the private commercial agencies which placed common labor also secured jobs for skilled and semiskilled men and women, most of whom were white. To obtain work opportunities for their clients recourse was had to newspaper advertisements by employers and to newspaper advertisements inserted by the agency itself.

No "adequate statistics" from these agencies in regard to the number of skilled and semiskilled applicants or placements could be

secured by the investigator. General statements made by these agencies suggested that the amount of their business with this class of workers was not large in comparison to that in behalf of unskilled laborers. The skilled and semiskilled had to pay higher placement fees than the unskilled workers; for example, those seeking skilled and semiskilled positions were charged \$4 for a \$12 per week job and up to \$8 for higher-paid jobs. One agency reported that its fee for a job paying \$30 per week was \$5, and two other offices stated that their maximum charge was 10 per cent of the first month's pay.

For temporary jobs the ordinary fee reported was \$1 or \$2, according to the pay agreed upon. In general, fees were collected in advance.

According to reports made by skilled and semiskilled workers having recourse to these bureaus—

Fees were not always refunded when the applicant was not hired. In case a job proved temporary, it was impossible to get back any portion of the fee paid in advance. The offer to get another job instead of refunding the fee sometimes meant weeks of waiting—a particularly bad thing if the applicant had used up all his funds during a period of unemployment preceding the short-time job, and had no money left to deposit with another fee-charging agency.

State-city employment service—Skilled-labor department.—The accompanying statistics show the activities of the skilled-labor department of the State-city employment service for 1927:

APPLICATIONS AND PLACEMENTS OF SKILLED AND SEMISKILLED LABOR, STATE-CITY EMPLOYMENT SERVICE OF CINCINNATI, 1927

Item	Men	Women	Total
Total number of applicants.....	1,041	569	1,610
Requests for help.....	658	181	839
Referred.....	688	194	882
Reported placed.....	623	141	764

The above figures indicate that in 1927 only a small percentage of the skilled and semiskilled workers among the 185,000 gainfully employed in Cincinnati used the State-city employment service.

Employers' associations.—Among the employers' associations that maintain employment agencies in Cincinnati the National Metal Trades Association is outstanding. This organization and three others carried on in a similar manner were visited by the Consumers' League investigator. Because of the diminished demand from employers for workers, one of these organizations had practically discontinued its employment work. The expenses of the employment agencies of these trade associations are paid out of their membership dues.

The investigator was told several times by employment managers that the trade association employment agency was "their sole source of labor supply," the main reasons for such reliance being because such agency understands the exact needs of the employers and because it is the policy of such agencies in Cincinnati to engage only nonunion labor.

From the worker's standpoint, it is sometimes charged that these employers' associations are a stumbling block in the way of advancement to better jobs and wages, as well as a check on union affiliations. The files of the association usually contain full information on the applicant's previous connections and

wages, and it is difficult for him to get work at a higher rate of pay than he has earned with another company in the same industry.

Labor unions.—With two exceptions, the secretaries of 12 labor unions who were interviewed reported that an important part of their work was to keep in contact with employers who had agreements with the union and to furnish them with employees when required. Ordinarily union members would be supplied, but if no unionists were available a nonunionist might be recommended.

Members moving to another city were presented with a traveling card recommending them to union secretaries in other localities. Once in a while an employer's request for labor would be met by correspondence with a local office in another city.

In comparison to the working populations in some other large municipalities, the Cincinnati wage earners, except in the building trades, are only slightly organized. In consequence, the number of workers placed through the unions in Cincinnati is "comparatively small."

Schools and educational agencies.—Certain trade schools make an effort to secure positions for the men and women whom they train. Among a sample group of seven of these specialized institutions were the Ohio Mechanics Institute, the Engineering College of the University of Cincinnati, and the Marinello School. The cost of tuition ranged from \$100 to \$250 per annum, but in general was not over \$100.

In the spring of 1928 the approximate number of students enrolled in these seven institutions, plus the Y. M. C. A. departments doing placement work, was only 2,700. On the whole, the small number of workers able to avail themselves of these schools were more advantageously situated as regards placement than other mechanical workers.

Agencies Placing Domestic and Restaurant Workers

Fee-charging agencies.—At the time of the investigation there were six fee-charging employment offices handling domestic, restaurant, and institutional help, two of the six making this type of placements³ only. Their method of finding jobs for their patrons was similar to that followed in securing other kinds of positions, namely, reading "help wanted" newspaper advertisements, calling up patrons, and receiving direct orders from employers.

The charges for permanent positions ranged from \$2 for a job paying \$8 per week to \$5 for a \$25-a-week position, the fees being demanded on acceptance of the position. The prevailing fee for a temporary job was 40 or 50 cents per day. Furthermore, the employer sometimes paid an amount equal to that charged the applicant and sometimes half as much. In other cases, however, only the applicant paid.

In response to the allegation that the agencies sometimes failed to return the entire fee of the applicant when she failed to get a job to which she was referred, the agency contended that it was entitled "to make a service charge for its trouble." Moreover, the policy of offering to secure another position, rather than refunding the fee paid, when a supposedly permanent opening proved to be a tem-

³ A third office, operating in this special field had its license revoked in April, 1928, for getting money under false pretenses.

porary one constituted as much of a hardship to the domestic or restaurant worker as it did to other types of applicants.

State-city employment service—Domestic department.—During the calendar year 1927 there were 2,708 woman applicants at the domestic department of the State-city employment service of whom 928, or 34.2 per cent, were reported placed. No comparable figures were obtainable for the same type of placements by private fee-charging offices. During 1927, however, the 16 commercial employment agencies with appreciable numbers of woman applicants placed only 37 per cent.

Agencies Placing Clerical and Office Workers

Fee-charging agencies.—Of the six commercial bureaus placing clerical and office workers at the time of the survey, four were handling this type of applicants exclusively. Managers reported that no registration fee or deposit was demanded. The fees of several agencies—percentages of the first month's salary—were as follows:

Agencies A, B, and C⁴

On a monthly salary of—	Fee, per cent
Less than \$75.....	30
\$75 to \$100.....	40
\$100 to \$150.....	50
\$150 to \$300.....	60
\$300 or more.....	⁵ 6

Agency D

On a monthly salary of—	
Less than \$75.....	30
\$75 to \$100.....	40
\$100 to \$125.....	50
\$125 to \$200.....	60
\$200 or more.....	⁵ 6

The contracts of two agencies state that for a temporary position "accepted and agreed upon as such" the applicant shall pay 10 per cent of the salary earned during the temporary employment, provided this does not exceed the amount of a fee for a permanent position.

Unlike the above-mentioned contracts, the contract of a third agency does not define "temporary employment" at all or make any reference concerning "fees for positions accepted as temporary."

Employment office managers reported that when an applicant found his job other than represented, the agency would get him another one. The printed contracts, however, include no precise statement covering this matter.

One of these bureaus reported approximately 9,000 applicants in 1927 and the placement of only 30 per cent, and another agency nearly 11,000 applicants and the placement of about 15 per cent. The other two agencies placing office workers only had not been operating long enough to make an annual report on applicants and placements.

*Business schools.*⁶—During the 1927-28 session of the Y. M. C. A. business schools 1,049 men and women were in attendance. A business course of 12 months costs \$65.

⁴ Agency C's charge is 60 per cent of the first month's salary on positions paying \$150 or more a month, even if the salary is over \$300 a month.

⁵ Per cent of year's salary.

⁶ The students of two commercial schools visited were found to be mainly young boys and girls. The placement work of these institutions are referred to in the section on junior placements.

In the year ending May, 1928, there were 463 students in these schools who obtained jobs through the employment bureau of the Y. M. C. A. educational department. Only some of these were clerical or office workers. However, some of the adults in the Y. M. C. A. schools already have jobs and are studying to equip themselves for better positions or other lines of work.

Typewriter companies.—Free placement work is being done by large typewriter companies in various cities of the United States. The investigation included four such employment departments. Woman applicants predominate, one agency reporting that 95 per cent of its applicants were female. Not only typists and stenographers but various kinds of trained office workers are placed by these companies. One company reported that in "a recent calendar year 85 per cent of some 5,000 requests from employers for office employees had been satisfactorily filled by the woman at the head of its employment department." Another office stated that frequently the head of the employment department interviewed 50 or 60 persons a day.

State-city employment service—Clerical and professional department.—The small number of clerical and professional persons applying to the State-city employment service—666 in 1927—is accounted for by the disadvantageous situation of this office which "was too far uptown to be easily visited." The proportion of applicants placed was also small—only 22 per cent.

Agencies Serving Professional People

Teachers' agency.—One teachers' agency was included in the survey. A registration fee of \$1 was charged by this agency and, according to the printed contract form, 5 per cent of a calendar year's salary for a permanent position. The commission for a temporary position was 7 per cent of the earned salary.

Entertainment bureaus.—The engagements made through the four agencies of this type covered by the survey were, in the majority of cases, for only one occasion. The artist was paid by the bureau instead of by the individual or group for whom he performed. The amount he received seemed to depend "upon the good will of the bureau manager."

According to one manager, dancers, singers, and comedians booked "made \$15 a night or more." Another manager reported that "many of his artists made \$50 a week."

Even though these bureaus, in their phrase, "sell talent," they are in reality employment agencies, since they establish the contact between the worker and the job. For this reason they should be licensed by the State and the city, as other employment agencies are, and subject to inspection under the law regulating private employment agencies. The manager of one of these bureaus had a city employment agency license at the time of this study, though not compelled to take out such a license.

Stories told by professional performers make it seem the more desirable that all these bureaus be licensed. Young girls calling to secure engagements have been subjected to unpleasant personalities in these offices. When appearing in costume at various affairs they have been compelled to change without adequate dressing rooms and under undesirable conditions.

Cincinnati Art Center.—This organization is a comparatively new one, which has been established to promote interest in the fine arts.

It places its student members, who are preparing for careers, in part-time work, which enables them to pay some of their expenses. The student membership dues are only \$1 per annum. Up to the time the investigator interviewed the center it had made "no stated charge" to older artists for booking them for engagements aside from the membership dues of \$2. Plans were being considered, however, under which a certain percentage of the amount received for securing an engagement would be retained by the center.

Chamber of commerce.—The chamber of commerce of the city maintains a list of applicants, composed for the most part of salesmen. When chamber members call for such employees recommendations are made from these applicants. No fee is charged the applicant.

Agencies Serving Special Groups

AMONG the fraternal and similar organizations placing special groups without charging fees were the Masonic Employment Bureau, the Young Men's Christian Association, and the Friars' Club. The first-named agency is financed by the Blue Lodge members of the Masonic order and obtains positions not only for Masons but also for their blood relations. In 1927 over 68 per cent of 1,832 applicants were placed.

The Y. M. C. A., in addition to placing the students in its business schools, as already mentioned, offers the service of its employment department to any of its members, the membership dues being \$10 per annum.

The Friars' Club, a gym and athletic organization for young Catholic men, makes the services of its secretary available to club members seeking jobs for themselves or their relations. In the first four months of its existence the employment bureau of the club placed 51 persons.

Agencies for placing the handicapped.—The Cincinnati Association for the Welfare of the Blind and the Handicap Placement Bureau receive funds from the Community Chest and endeavor to secure work for persons who are especially difficult to place. The Cincinnati League for the Hard of Hearing cooperates with the Handicap Placement Bureau, which reported that out of 570 applicants, of whom 85 were colored, 213 were placed in permanent jobs, 12 were set up in business, and 150 aided in obtaining temporary employment.

Agencies Serving Juniors

THE school census of May, 1928, showed that 17,249, or about 58 per cent, of the 29,802 young persons in Cincinnati between 15 and 19 years of age, were engaged in gainful occupations. These employed juniors constituted 9.3 per cent of Cincinnati's wage earners. According to the fee-charging employment bureau managers, few juniors had secured jobs through such offices, as these boys and girls in general would not be able to furnish the fees required, especially for initial jobs. Furthermore, at the period investigated there was considerable unemployment among adults.

Junior placements were made mainly by the schools, especially the vocational schools. At the time of this survey there were in Cincinnati

10 vocational schools financed by State and Federal funds "in conjunction with the board of education." All these schools were following the cooperative plan, the pupils after some preliminary training spending alternate weeks in school and on a paying job.

There were 2,379 students enrolled in the full-time vocational schools during the year ending in June, 1928; ⁷ 1,208 of these students (843 boys and 365 girls) worked on a cooperative basis all or part of the year. Three hundred and forty-six students graduated from the 2-years' course and obtained full-time employment. Eight hundred and fifty-three more pupils left the school during the year without completing the course, on becoming old enough to work full time, and secured jobs as a result of their school training, though undoubtedly not as well prepared as if they had finished the course. On the basis of school census figures, and without allowing for whatever increase there was in the junior wage-earning population after that census was taken, the percentage of working minors who obtained employment during 1928 as a result of vocational-school training might be roughly estimated at 7 per cent.

Other schools.—Some junior placement work was being done by the public senior and junior high schools. A parochial school having a commercial course stated that it had little difficulty in finding work for its students after their graduation. Schools were maintained by several companies who make calculating machines. In 1927 one of these companies, which has schools all over the country, secured permanent jobs for 277 students through the office of the company in Cincinnati.

A considerable group of young persons obtained jobs through business and commercial schools where they took courses. The investigation included two of the nine such schools in Cincinnati. According to the manager of one large school, 768 requests from employers for office workers had been received by him in 1927. A private technical school "was supposed to guarantee" a job to a student regardless of the amount of time he spent on the course, and a privately endowed colored industrial school endeavored to find employment for "worthy and needy students."

A small number of boys were being placed by means of trade-union apprenticeship in certain building trades.

State-city employment service—Junior department.—In May, 1928, a separate department for junior placement was established in the public employment service and soon afterwards moved to the second floor of the city hall to effect a closer relation with the department of public welfare. The new agency was expected to be functioning on full time at the beginning of 1929.

Summary of Findings and Recommendations

Evidence procured through this investigation shows that:

1. Existing employment agencies fail to place a considerable percentage of their applicants.
2. Fee-charging employment agencies:
 - (a) Charge higher fees than applicants should be asked to pay;
 - (b) Indulge in practices detrimental to the interests of the worker;
 - (c) Increase the employer's costs by supplying applicants ill-equipped to fill vacancies and by increasing labor turnover.
3. Agencies other than the fee-charging and public employment agencies assist in placing workers to only a limited degree.
4. The important problem of junior placement is being inadequately handled.
5. The city lacks an adequate clearing house of information on employment conditions.

⁷ 228 apprentices also attended these schools on a 4-hour-a-week voluntary basis.

The Consumers League of Cincinnati recommends, therefore, the following means of steadying employment and purchasing power for the benefit of the employee, the employer, and the public:

1. A city ordinance controlling by license and inspection the practices of fee-charging agencies.⁸
2. The greatest possible development of the free State-city employment service.
3. Limitation of the number of private employment agencies by providing through State law that no more agencies may be licensed unless it can be proved that existing agencies are not meeting the needs of the community.

Unemployment Grants in England

THE Unemployment Grants Committee in its eighth annual report, recently published, gives a summary of its work from its formation in December, 1920, to June 10, 1929, of which the most interesting feature is the quick response of expenditure to different policies of the Government. The committee was appointed to administer State assistance to local authorities who wished to relieve serious unemployment by carrying out schemes of useful work in their own districts. The help given might be the assumption by the Government of a part of the interest and sinking fund charges on any loan raised to meet the cost of an approved scheme, or it might be the payment of a part of the wages bill, in cases where no loan is required and the scheme is paid for out of current revenue.

From the beginning of the committee's work up to the end of 1925, the Government's policy remained about the same, and during this period schemes estimated to cost nearly £100,000,000⁹ were approved. The Government then decided to cut down the amount of help given, and a circular letter was sent out, December 15, 1925, making the conditions for the receipt of grants much more severe. The effect was seen immediately.

Whereas in the year 1924-25, 2,272 schemes, estimated to cost £20,639,000 were approved for grant, the corresponding figures for the three following years were:

June, 1925-26, 1,240 schemes, to cost £17,566,000. (The circular [letter] referred to was issued in the middle of this period.)

June, 1926-27, 63 schemes, to cost £792,000.

June, 1927-28, 28 schemes, to cost £319,000.

In November, 1928, the policy was changed again. The Industrial Transference Board had emphasized the necessity of drawing off some of the unemployed from the regions most severely depressed, and the Government was anxious to carry out this plan. Accordingly, another circular letter was issued, offering help on much easier terms for works undertaken in areas with light unemployment, provided that at least 50 per cent of the men employed were brought from the areas of heavy unemployment. The effect was immediate. Between the issuance of the letter, November 9, 1928, and June 10, 1929, schemes to the number of 657 had been submitted, and approval had been given to 320, estimated to cost £5,545,749, and to provide

⁸ Such an ordinance, drawn up on the basis of the facts presented in this study, was passed by the city council on December 26, 1928, and became effective on January 1, 1929.

⁹ 1£ at par = \$4.8665.

employment for 224,946 man-months. Moreover, the field of employment was much widened by the new terms.

A large number of authorities, who had hitherto been ineligible for grant because of the low measure of unemployment in their area, thus not only came within the ambit of the committee, but were eligible for an extended grant, provided that they were willing to employ transferred men. Many of these areas have been held to be suitable for the introduction of transferred men and the local authorities have been willing to employ such men in return for the grant. Schemes of sewerage, road construction and improvement, water supply, etc., which in many cases have been badly needed, but the cost of which could not be met out of local funds, have been put forward and approved for grant in these areas.

In considering the prompt response to the offer of November, 1928, the committee feels that it affords an eloquent testimony of the desire of the local authorities throughout the country to cooperate in the local relief of unemployment and to improve the public amenities, health and other, in their districts. In addition, it seems to show that the possibilities in this direction are larger than was supposed, and that further schemes of useful public work will be forthcoming if encouragement is afforded.

Rehabilitation of the Rural Poor in South Africa

BEGINNING in 1920 the Government of South Africa has found it necessary to carry on special plans for the relief of unemployment, varying with the needs of the particular locality affected. The landless unemployed of the rural districts, including those who had drifted to the cities, presented certain difficulties. Some, given a chance, were quite able to reestablish themselves on the land, and for these provision was made under settlement schemes. But there was a less promising element corresponding, apparently, to the "poor whites" of backward and isolated districts.

These have generally been spoken of as representing a hopeless class; but many hold otherwise, and believe them to be suffering from want of opportunity, from much that is wrong in South African land and agricultural practice, and from the almost inevitable effects of racial and social divergencies which, in their unrestricted operation, are essential features of the common make-up of our agricultural and rural systems.

These, it was felt, needed discipline and training first of all. A training farm was established at Losperfontein in the Transvaal, and suitable applicants were sent there with their families, to be given actual practice in intensive agricultural methods. A new arrival is first put to work on communal farming under the direction of a farm manager, and is paid wages not to exceed 5s. 6d. (\$1.34) a day, with free housing, schooling for the children, fuel, and medical attention. If he does well, he is advanced to what is known as the "three-morgen plot scheme," (a morgen being 2.17 acres of ground), under which he is placed on a small holding which he works, still under the direction of the farm manager, for his own benefit. He is guaranteed the same daily wage, but his produce is marketed for him, and any surplus over the actual amount spent for his wages, fertilizers, animals, and transport is placed to his credit. If he succeeds here, he is considered ready for placement. The original plan was to place trainees with estab-

lished farmers, apparently as a kind of tenant on shares, but this arrangement was not wholly successful and has been superseded by what is known as the pagter trainee extension scheme, under which the Government takes the place of the landlord farmer, but takes no profits, requiring only that actual expenses incurred on the tenant's behalf shall be returned. Three areas are being developed as part of this plan. These schemes are being carried on under the Department of Labor, and its official publication, the Social and Industrial Review, gives in its issue for June, 1929, some details concerning progress made at Zanddrift, one of these areas which is considered of special importance.

The scheme of training adopted on this farm was new; it embodied principles, such, for example, as that of systematized community cooperation, which had not been applied in any previous attempt to reclaim as agriculturists some of the many landless men who have sunk low in the scale of poverty and helplessness. In a sense, therefore, it was regarded by the Government as an important experiment in dealing with rural poverty.

When the department undertook the scheme, the Zanddrift area was uncleared, unimproved, virgin land, not especially promising for the purpose in view, since the soil is shallow and granitic, the possible range of crops of commercial value is small, and the expenses of fertilization by chemical and rotation methods heavy. "Zanddrift, in fact, as an agricultural proposition, is lean and poor, and is furthermore situated in a hail belt." In April, 1926, a few men were brought in to begin the plan, and the number was gradually increased to 93 in September of that year.

These were placed on eight-morgen subdivisions of bush land under the new canals. The work for the first year consisted mainly of the clearing of bush, making of irrigation furrows and planting such preliminary crops as were possible, (nearly the whole of one crop having been destroyed by hail). In subsequent years further development took place, houses and barns were built, and greater areas were prepared with progressively increased crop yields; but it is not until 1929-30 and subsequent seasons that the maximum yield can be expected.

The plan called for six years of training and supervision, the Department of Labor advancing the whole cost as a loan to the trainees, to be repaid within the six-year period. The total number placed was 95. Up to March 31, 1929, the total amount advanced was £47,928 (\$233,242), of which £24,997 (\$121,648) was for livestock, implements, building materials, and the like, £18,260 (\$88,862) was paid out as maintenance allowances, and £4,671 (\$22,731) was for rent. Of this amount the trainees had, up to April 10, 1929 repaid £15,682 (\$76,316) and £387 (\$1,883) had been written off, leaving a balance of £31,859 (\$155,041). The present value of the farm, including the net cost of houses, barns, and tobacco flue-curing barns, is £56,000 (\$272,524). "No allowance in such valuation has been made for clearing, plowing, fertilizing, cultivation, or making of irrigation canals, labor on building, etc., all of which is work done by the pagters themselves."

In the earlier years so much time was required for clearing land, putting up buildings and similar pioneer work, that the full crop return has not yet been realized, but for 1928 the value of the produce amounted to about £14,000 (\$68,131), and it is estimated that as soon as full development is reached the normal production will be worth £17,500 (\$85,164) annually.

Up to the end of March of this year, the department had spent, on an average, £504 (\$2,453) for each trainee, of which £169 (\$822) had already been repaid. This average included the capital expenditures which will not have to be repeated, so that expenditure per man will decrease as the average returns per man increase, and the debt will show a progressively rapid diminution with the later years of the training period. A study of the repayments already made shows that 5 men are ahead of the theoretic schedule, 22 are exactly with it, while 63 have repaid amounts ranging from £125 to £175 (\$608 to \$852), and over, but have not reached the whole of the £200 (\$973), which, in theory, should have been returned by March 31, 1929. As the initial years of such a scheme are inevitably the most difficult and expensive, the results are looked upon as satisfactory.

Clearly, the lean times are over, the pioneer work has been done, and the fruits remain to be reaped. The application of the principle of community cooperation, while preserving every circumstance of individual interest, has on the one side supplied business efficiency and on the other maintained personal incentive, so that a proposition against which the department was strongly and authoritatively warned has proved to be capable of successful working, and the apparently impossible shown to be possible.

The social results are even more satisfactory than the financial progress. Even were it necessary to assume that men of the kind placed here could not become self-supporting—and the department strongly protests any such assumption—the experiment would still be worth maintaining because of its effect upon those brought within its scope.

In place of the depressing spectacle of the normal poverty and low standards of life of previous days, there have been created wholesome conditions under which some measure of simple comfort, freedom from the specter of want and semistarvation, and a real degree of happiness has been rendered possible by their own efforts and work for the men, women, and not least, the children, who make up this little community.

TREND OF EMPLOYMENT

Summary for July, 1929

EMPLOYMENT decreased 0.2 per cent in July, 1929, as compared with June, and pay-roll totals decreased 3.8 per cent, according to reports made the Bureau of Labor Statistics.

The industrial groups surveyed, the number of establishments reporting in each group, the number of employees covered, and the total pay rolls for one week, for both June and July, together with the per cents of change in July, are shown in the following table:

Industry	Estab- lish- ments	Employment		Per cent of change	Pay roll in 1 week		Per cent of change
		June, 1929	July, 1929		June, 1929	July, 1929	
1. Manufacturing.....	12, 737	3, 586, 335	3, 571, 163	¹ -0.6	\$99, 362, 798	\$94, 503, 231	¹ -4.5
2. Coal mining.....	1, 317	286, 373	274, 205	-4.2	7, 198, 908	6, 426, 650	-10.7
Anthracite.....	162	164, 632	93, 716	-10.4	2, 841, 629	2, 278, 454	-19.8
Bituminous.....	1, 155	181, 741	180, 489	-0.7	4, 357, 279	4, 148, 196	-4.8
3. Metalliferous mining.....	354	63, 780	62, 346	-2.2	1, 948, 118	1, 825, 632	-6.3
4. Quarrying and nonme- talic mining.....	656	39, 085	38, 374	-1.8	1, 058, 663	1, 003, 453	-5.2
5. Public utilities.....	9, 017	710, 065	718, 539	+1.2	20, 846, 352	21, 275, 568	+2.1
6. Trade.....	6, 630	260, 042	252, 796	-2.8	6, 579, 757	6, 475, 040	-1.6
Wholesale.....	1, 530	54, 191	54, 827	+1.2	1, 641, 573	1, 672, 061	+1.9
Retail.....	5, 100	205, 851	197, 969	-3.8	4, 938, 184	4, 802, 979	-2.7
7. Hotels.....	1, 828	145, 467	148, 047	+1.8	² 2, 438, 128	² 2, 464, 339	+1.1
8. Canning and preserving.....	353	24, 924	41, 256	+65.5	411, 916	625, 689	+51.9
Total.....	32, 892	5, 116, 071	5, 106, 726	-0.2	139, 844, 640	134, 599, 602	-3.8

¹ Weighted per cent of change for the combined 54 manufacturing industries, repeated from Table 2, p. 5; the remaining per cents of change, including total, are unweighted.

² Cash payments only; see text, p. 25.

July is customarily a month of inventory-taking in manufacturing establishments, while mining and retail trade operations are much curtailed also at that season. On the other hand public utility companies are largely engaged in outside operation in summer, wholesale trade is preparing for autumn business, the summer resort season increases hotel employment, and the summer canning season has opened. The net decrease in employment in July was only 10,000 employees out of a total of more than 5,100,000.

For convenient reference the latest data available relating to all employees, excluding executives and officials, on CLASS I RAILROADS, drawn from Interstate Commerce Commission reports, are shown in the following statement. These reports are for the months of May and June instead of for June and July consequently the figures can not be combined with those presented in the foregoing table.

Industry	Employment		Per cent of change	Amount of pay roll in entire month		Per cent of change
	May 15, 1929	June 15, 1929		May, 1929	June, 1929	
Class I railroads.....	1, 697, 400	1, 719, 274	+1.3	\$242, 765, 789	\$237, 758, 344	-2.1

The total number of employees included in this summary is more than 6,800,000, with pay-roll totals in 1 week of approximately \$190,000,000.

1. Employment in Selected Manufacturing Industries in July, 1929

Comparison of Employment and Pay-Roll Totals in Manufacturing Industries, June and July, 1929

EMPLOYMENT in manufacturing industries *decreased* 0.6 per cent in July as compared with June and pay-roll totals *decreased* 4.5 per cent. July in manufacturing industries is regularly the season for inventory taking and repairs, while pay-roll totals are further reduced by shutdowns on July 4. These shutdowns this year, in many instances, were prolonged over the following week-end, owing to the 4th falling on Thursday. The decrease in employment, however, was smaller than in any July since the bureau began the present series of reports in 1922.

The Bureau of Labor Statistics' weighted index of employment in manufacturing industries for July, 1929, is 98.2, as compared with 98.8 for June, 1929, and 92.2 for July, 1928; the weighted index of pay-roll totals for July, 1929, is 98.2, as compared with 102.8 for June, 1929, and 91.2 for July, 1928. The monthly average for 1926 equals 100.

The slaughtering, ice cream, and flour industries of the food group reported increased employment in July as compared with June, while each of the 10 industries of the textile group showed fewer employees. The outstanding decrease in this group was in women's clothing and was partly seasonal in character and partly the result of labor difficulties in certain sections. In the iron and steel *group* cast-iron pipe, structural ironwork, and machine tools gained in employment in July, while the iron and steel *industry* reported decreased employment of 0.7 per cent. Increased employment was shown also in furniture, leather, boots and shoes, paper boxes, book and job printing, fertilizers, petroleum refining, cement, brick, wagons, electric-railroad car repairing, electrical machinery, rubber boots, and shipbuilding. The automobile industry reported a drop in employment of 2.4 per cent, this being the third month of decreased employment since this industry reached its peak in April.

The rayon and radio industries, which are not yet included in the bureau's indexes, both added to their employees in July; the rayon increase was 4.1 per cent and the radio increase was 24.5 per cent.

The report for July, 1929, is based upon returns for 12,683 establishments in 54 of the principal manufacturing industries of the United States. These establishments in July had 3,526,174 employees, whose combined earnings in one week were \$93,576,416.

Five of the nine geographic divisions had more employees in manufacturing industries in July than in June—the Middle Atlantic, the West North Central, both the East and West South Central, and the Pacific. The West South Central division, however, alone reported a marked increase.

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL MANUFACTURING ESTABLISHMENTS IN JUNE AND JULY, 1929

Industry	Estab- lish- ments	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		June, 1929	July, 1929		June, 1929	July, 1929	
Food and kindred products	1,890	230,026	231,326	(1)	\$6,062,129	\$6,068,672	(1)
Slaughtering and meat pack- ing.....	205	87,833	88,499	+0.8	2,322,047	2,366,209	+1.9
Confectionery.....	299	29,746	29,097	-2.2	567,211	523,092	-7.8
Ice cream.....	328	13,732	14,252	+3.8	458,412	478,772	+4.4
Flour.....	336	15,553	16,521	+6.2	424,042	440,539	+3.9
Baking.....	706	71,755	71,680	-0.1	1,939,572	1,928,992	-0.5
Sugar refining, cane.....	16	11,407	11,277	-1.1	350,845	331,068	-5.6
Textiles and their products	2,185	629,220	613,642	(1)	12,377,632	11,709,633	(1)
Cotton goods.....	451	217,898	210,577	-3.4	3,396,759	3,244,775	-4.5
Hosiery and knit goods.....	349	100,724	99,438	-1.3	1,965,031	1,820,773	-7.3
Silk goods.....	285	65,704	65,612	-0.1	1,416,496	1,359,994	-4.0
Woolen and worsted goods.....	192	62,736	61,357	-2.2	1,405,833	1,348,272	-4.1
Carpets and rugs.....	30	24,915	24,057	-3.4	624,806	582,450	-6.8
Dyeing and finishing textiles.....	115	34,469	33,757	-2.1	843,993	804,079	-4.7
Clothing, men's.....	311	65,619	65,571	-0.1	1,558,740	1,515,685	-2.8
Shirts and collars.....	119	21,714	21,237	-2.2	334,939	341,373	+1.9
Clothing, women's.....	214	23,101	20,759	-10.1	540,979	452,091	-16.4
Millinery and lace goods.....	89	12,340	11,277	-8.6	289,996	240,141	-17.2
Iron and steel and their prod- ucts	1,919	740,171	735,186	(1)	23,198,928	22,124,055	(1)
Iron and steel.....	208	287,502	285,362	-0.7	9,440,342	8,867,466	-6.1
Cast-iron pipe.....	43	12,477	12,767	+2.3	293,435	306,305	+4.4
Structural ironwork.....	175	29,414	29,984	+1.9	889,006	885,809	-0.4
Foundry and machine-shop products.....	1,054	285,539	284,932	-0.2	8,875,878	8,578,705	-3.3
Hardware.....	70	32,576	32,148	-1.3	853,225	796,999	-6.6
Machine tools.....	147	40,878	41,150	+0.7	1,357,810	1,321,910	-2.6
Steam fittings and steam and hot-water heating apparatus.....	108	31,768	30,225	-4.9	926,917	858,917	-7.3
Stoves.....	114	20,017	18,618	-7.0	562,315	507,884	-9.7
Lumber and its products	1,435	253,456	254,870	(1)	5,581,974	5,558,720	(1)
Lumber, sawmills.....	672	151,598	151,467	-0.1	3,130,943	3,167,042	+1.2
Lumber, millwork.....	337	36,652	36,576	-0.2	873,024	850,843	-2.5
Furniture.....	426	65,206	66,827	+2.5	1,578,007	1,540,235	-2.4
Leather and its products	451	128,986	136,442	(1)	2,908,936	3,165,933	(1)
Leather.....	132	25,894	26,769	+3.4	670,203	680,475	+1.5
Boots and shoes.....	319	103,092	109,673	+6.4	2,238,733	2,485,458	+11.0
Paper and printing	1,210	208,345	208,539	(1)	7,005,272	6,857,351	(1)
Paper and pulp.....	214	59,847	59,678	-0.3	1,632,059	1,597,990	-2.1
Paper boxes.....	179	18,633	18,828	+1.0	421,516	422,807	+0.3
Printing, book and job.....	373	46,463	47,319	+1.8	1,588,257	1,555,554	-2.1
Printing, newspapers.....	444	83,402	82,714	-0.8	3,363,440	3,281,000	-2.5
Chemicals and allied prod- ucts	369	98,299	100,165	(1)	2,996,318	3,027,458	(1)
Chemicals.....	142	36,962	36,641	-0.9	1,047,637	1,024,185	-2.2
Fertilizers.....	153	7,482	7,933	+6.0	164,095	170,983	+4.2
Petroleum refining.....	74	53,855	55,591	+3.2	1,784,586	1,832,290	+2.7
Stone, clay, and glass prod- ucts	1,000	131,317	127,116	(1)	3,450,632	3,170,894	(1)
Cement.....	110	24,846	24,987	+0.6	744,047	721,589	-3.0
Brick, tile, and terra cotta.....	639	43,159	43,632	+1.1	1,064,602	1,043,908	-3.8
Pottery.....	117	20,312	18,871	-7.1	496,466	424,333	-14.5
Glass.....	134	43,000	39,626	-7.8	1,124,917	981,064	-12.8
Metal products, other than iron and steel	236	58,632	57,778	(1)	1,586,834	1,518,293	(1)
Stamped and enameled ware.....	75	20,210	20,042	-0.8	494,421	470,242	-4.9
Brass, bronze, and copper products.....	161	38,422	37,736	-1.8	1,092,413	1,048,051	-4.1

Footnotes at end of table.

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL MANUFACTURING ESTABLISHMENTS IN JUNE AND JULY, 1929—Continued

Industry	Estab- lish- ments	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		June, 1929	July, 1929		June, 1929	July, 1929	
Tobacco products	249	63,056	62,289	(¹)	\$1,054,197	\$1,045,082	(¹)
Chewing and smoking to- bacco and snuff.....	27	8,272	7,880	-4.7	140,781	132,101	-6.2
Cigars and cigarettes.....	222	54,784	54,409	-0.7	913,416	912,981	-0.1
Vehicles for land transporta- tion	1,262	638,445	627,910	(¹)	21,097,437	18,443,871	(¹)
Automobiles.....	228	466,670	455,682	-2.4	15,739,472	13,246,705	-15.8
Carriages and wagons.....	51	1,352	1,379	+2.0	29,335	30,038	+2.4
Car building and repairing, electric-railroad.....	431	27,623	28,279	+2.4	880,821	877,872	-0.3
Car building and repairing, steam-railroad.....	552	142,800	142,570	-0.2	4,447,809	4,289,256	-3.6
Miscellaneous industries	531	406,382	415,900	(¹)	12,043,109	11,813,269	(¹)
Agricultural implements.....	77	26,533	25,553	-3.7	794,943	737,331	-7.2
Electrical machinery, appa- ratus, and supplies.....	188	215,650	221,367	+2.6	6,628,081	6,588,106	-0.6
Pianos and organs.....	74	7,489	7,134	-4.7	225,915	205,754	-8.9
Rubber boots and shoes.....	12	16,923	17,511	+3.5	423,353	431,676	+2.0
Automobile tires.....	39	62,547	61,416	-1.8	1,909,582	1,794,380	-6.0
Shipbuilding.....	87	37,882	37,930	+0.1	1,164,235	1,129,207	-3.0
Rayon ²	13	19,539	20,331	+4.1	403,823	410,204	+1.6
Radio ³	41	19,810	24,658	+24.5	493,177	516,611	+4.8
All industries	12,737	3,586,335	3,571,163	(¹)	99,362,798	94,503,231	(¹)

RECAPITULATION BY GEOGRAPHIC DIVISIONS

GEOGRAPHIC DIVISION							
New England ⁴	1,514	404,710	402,892	-0.4	\$10,218,760	\$10,089,751	-1.3
Middle Atlantic ⁴	2,924	949,561	950,072	+0.1	27,581,085	26,843,525	-2.7
East North Central ⁵	3,177	1,274,341	1,261,893	-1.0	39,639,691	36,022,153	-9.1
West North Central ⁶	1,145	183,957	184,124	+0.1	4,759,335	4,712,842	-1.0
South Atlantic ⁷	1,590	352,013	346,954	-1.4	7,043,453	6,740,307	-4.3
East South Central ⁸	634	133,796	134,047	+0.2	2,567,858	2,536,098	-1.2
West South Central ⁹	739	108,526	111,312	+2.6	2,504,262	2,567,831	+2.5
Mountain ¹⁰	226	34,848	34,428	-1.2	959,777	955,756	-(¹)
Pacific ¹¹	788	144,583	145,441	+0.6	4,088,639	4,030,978	-1.4
All divisions	12,737	3,586,335	3,571,163	(¹)	99,362,798	94,503,231	(¹)

¹ The per cent of change has not been computed for the reason that the figures in the preceding columns are unweighted and refer only to the establishments reporting, for the weighted per cent of change, wherein proper allowance is made for the relative importance of the several industries, so that the figures may represent all establishments of the country in the industries here represented, see Table 2.

² The rayon industry was surveyed for the first time for the January-February comparison, and the radio industry for the March-April comparison, and, since the data for computing relative numbers are not yet available, these industries are not included in the bureau's indexes of employment and pay-roll totals. The total figures for all manufacturing industries given in the text, p. 2, do not include rayon or radio.

³ Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont.

⁴ New Jersey, New York, Pennsylvania.

⁵ Illinois, Indiana, Michigan, Ohio, Wisconsin.

⁶ Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota.

⁷ Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, West Virginia.

⁸ Alabama, Kentucky, Mississippi, Tennessee.

⁹ Arkansas, Louisiana, Oklahoma, Texas.

¹⁰ Arizona, Colorado, Idaho, Montana, New Mexico, Nevada, Utah, Wyoming.

¹¹ California, Oregon, Washington.

¹² Less than one-tenth of 1 per cent.

TABLE 2.—PER CENT OF CHANGE, JUNE TO JULY, 1929—12 GROUPS OF MANUFACTURING INDUSTRIES AND TOTAL OF ALL INDUSTRIES

[Computed from the index numbers of each group, which are obtained by weighting the index numbers of the several industries of the group, by the number of employees, or wages paid, in the industries]

Group	Per cent of change, June to July, 1929		Group	Per cent of change June to July, 1929	
	Number on pay roll	Amount of pay roll		Number on pay roll	Amount of pay roll
Food and kindred products.....	+0.6	+0.1	Stone, clay, and glass products..	-2.9	-8.0
Textiles and their products.....	-3.1	-6.4	Metal products, other than iron and steel.....	-1.5	-4.3
Iron and steel and their prod- ucts.....	-0.6	-4.6	Tobacco products.....	-1.1	-0.7
Lumber and its products.....	+0.6	-0.4	Vehicles for land transportation..	-1.4	-10.4
Leather and its products.....	+5.8	+8.8	Miscellaneous industries.....	+0.9	-2.4
Paper and printing.....	+0.4	-2.0			
Chemicals and allied products..	+1.5	+0.5	All industries.....	-0.6	-4.5

Comparison of Employment and Pay-Roll Totals in Manufacturing Industries, in July, 1929, and July, 1928

THE LEVEL of employment in manufacturing industries in July, 1929, was 6.5 per cent *higher* than in July, 1928, and employees' earnings were 7.7 per cent *greater*, this being the tenth successive month showing a higher level of employment than in the same month of the preceding year.

Forty of the 54 manufacturing industries had more employees at the end of this 12-month period than at the beginning. The *notable increases*, as in June, were over 30 per cent each, in electrical machinery, shipbuilding, and machine tools, while other outstanding increases were shown in petroleum refining, foundry and machine-shop products, and agricultural implements. Cotton goods' employment was 4 per cent greater in July, 1929, than in July, 1928; hosiery 8.5 per cent greater, iron and steel 7.8 per cent greater, and automobile employment 6 per cent greater.

The 14 industries which reported fewer employees in July, 1929, than in July, 1928, arranged according to the size of the decrease were: Steam fittings (9.8 per cent), pianos, cement, chewing and smoking tobacco, brick, glass, ice cream, leather, women's clothing, electric-railroad car building and repairing, rubber boots and shoes, millwork, cast-iron pipe, and pottery (0.1 per cent).

Manufacturing industries in each of the nine geographic divisions showed pronounced increases both in employment and pay-roll totals, in this comparison over a year's interval, the Middle Atlantic States leading in both items.

TABLE 3.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN MANUFACTURING INDUSTRIES, JULY, 1929, WITH JULY, 1928

[The per cents of change for each of the 12 groups of industries and for the total of all industries are weighted in the same manner as are the per cents of change in Table 2]

Industry	Per cent of change July, 1929, compared with July, 1928		Industry	Per cent of change July, 1929, compared with July, 1928	
	Number on pay roll	Amount of pay roll		Number on pay roll	Amount of pay roll
Food and kindred products	+2.3	+2.9	Chemicals and allied products	+10.0	+9.6
Slaughtering and meat packing.....	+1.5	+3.7	Chemicals.....	+4.5	+4.6
Confectionery.....	+1.1	+0.3	Fertilizers.....	+2.0	+2.7
Ice cream.....	-2.2	-3.6	Petroleum refining.....	+17.1	+14.9
Flour.....	+5.6	+4.3	Stone, clay, and glass products	-2.8	-4.9
Baking.....	+2.4	+3.0	Cement.....	-7.1	-10.9
Sugar refining, cane.....	+1.5	-1.0	Brick, tile, and terra cotta.....	-2.5	-5.8
Textiles and their products	+3.7	+4.2	Pottery.....	-0.1	+1.2
Cotton goods.....	+4.0	+7.2	Glass.....	-2.3	-2.7
Hosiery and knit goods.....	+8.5	+14.0	Metal products, other than iron and steel	+6.2	+10.9
Silk goods.....	+5.5	+5.8	Stamped and enameled ware.....	+3.7	+7.4
Woolen and worsted goods.....	+3.2	+5.1	Brass, bronze, and copper products.....	+7.7	+12.8
Carpets and rugs.....	+7.4	+8.5	Tobacco products	+2.5	+3.6
Dyeing and finishing textiles.....	+4.9	+4.9	Chewing and smoking tobacco and snuff.....	-4.3	-1.4
Clothing, men's.....	+3.4	+1.2	Cigars and cigarettes.....	+3.5	+4.2
Shirts and collars.....	+2.4	+10.9	Vehicles for land transportation	+4.8	+2.5
Clothing, women's.....	-1.9	-9.3	Automobiles.....	+6.0	-4.4
Millinery and lace goods.....	+1.3	-1.9	Carriages and wagons.....	+8.1	+3.3
Iron and steel and their products	+11.1	+14.4	Car building and repairing, electric-railroad.....	-1.4	-1.2
Iron and steel.....	+7.8	+12.8	Car building and repairing, steam-railroad.....	+2.0	+8.1
Cast-iron pipe.....	-0.5	+7.6	Miscellaneous industries	+29.5	+29.7
Structural ironwork.....	+9.0	+7.3	Agricultural implements.....	+16.5	+12.9
Foundry and machine-shop products.....	+16.9	+19.5	Electrical machinery, apparatus, and supplies.....	+39.1	+37.6
Hardware.....	+8.0	+9.4	Pianos and organs.....	-9.4	-11.8
Machine tools.....	+32.0	+35.7	Rubber boots and shoes.....	-1.3	+6.3
Steam fittings and steam and hot-water heating apparatus.....	-9.8	-11.9	Automobile tires.....	+4.6	-1.0
Stoves.....	+4.6	+7.5	Shipbuilding.....	+34.0	+37.3
Lumber and its products	+3.4	+3.3	All industries	+6.5	+7.7
Lumber, sawmills.....	+2.6	+3.5			
Lumber, millwork.....	-0.8	-2.3			
Furniture.....	+8.0	+8.6			
Leather and its products	+0.5	+3.5			
Leather.....	-2.2	+1.2			
Boots and shoes.....	+1.3	+4.4			
Paper and printing	+2.7	+4.1			
Paper and pulp.....	+2.0	+5.0			
Paper boxes.....	+4.4	+6.4			
Printing, book and job.....	+4.0	+1.8			
Printing, newspapers.....	+2.8	+4.4			

RECAPITULATION BY GEOGRAPHIC DIVISIONS

GEOGRAPHIC DIVISION ¹			GEOGRAPHIC DIVISION—contd. ¹		
New England.....	+6.1	+9.8	West South Central.....	+6.3	+10.2
Middle Atlantic.....	+9.3	+11.6	Mountain.....	+2.7	+7.5
East North Central.....	+8.9	+4.5	Pacific.....	+4.1	+3.3
West North Central.....	+3.3	+4.9	All divisions	+6.5	+7.7
South Atlantic.....	+4.9	+7.4			
East South Central.....	+6.0	+6.4			

¹ See footnote 3 to 11, p. 200.

Per Capita Earnings in Manufacturing Industries in July, 1929

PER CAPITA EARNINGS of employees in the combined 54 manufacturing industries were 3.8 per cent lower in July, 1929, than in June, 1929, and 1.1 per cent higher than in July, 1928.

TABLE 4.—COMPARISON OF PER CAPITA EARNINGS, IN MANUFACTURING INDUSTRIES, JULY, 1929, WITH JUNE, 1929, AND JULY, 1928

Industry	Per cent of change July, 1929, compared with—		Industry	Per cent of change July, 1929, compared with—	
	June, 1929	July, 1928		June, 1929	July, 1928
Boots and shoes.....	+4.3	+2.7	Stoves.....	-2.9	+2.7
Shirts and collars.....	+4.1	+8.2	Foundry and machine-shop products.....	-3.1	+2.3
Cast-iron pipe.....	+2.0	+8.2	Shipbuilding.....	-3.1	+2.2
Lumber, sawmills.....	+1.3	+0.9	Electrical machinery, appara- tus, and supplies.....	-3.2	-1.2
Slaughtering and meat packing.....	+1.1	+2.3	Machine tools.....	-3.3	+2.4
Cigars and cigarettes.....	+0.7	+0.7	Car building and repairing, steam-railroad.....	-3.4	+5.8
Ice cream.....	+0.6	-1.1	Carpets and rugs.....	-3.5	+1.2
Carriages and wagons.....	+0.4	-4.4	Cement.....	-3.6	-4.0
Baking.....	-0.4	+0.7	Agricultural implements.....	-3.7	-3.3
Petroleum refining.....	-0.5	-1.6	Printing, book and job.....	-3.8	-1.8
Paper boxes.....	-0.7	+1.7	Silk goods.....	-3.8	+0.6
Cotton goods.....	-1.2	+3.1	Stamped and enameled ware.....	-4.1	+3.6
Chemicals.....	-1.4	(¹)	Automobile tires.....	-4.3	-5.7
Chewing and smoking tobacco and snuff.....	-1.5	+3.2	Pianos and organs.....	-4.4	-2.9
Rubber boots.....	-1.5	+7.6	Sugar refining, cane.....	-4.6	-2.4
Printing, newspapers.....	-1.6	+1.8	Brick, tile, and terra cotta.....	-4.8	-3.5
Fertilizers.....	-1.7	+1.4	Furniture.....	-4.8	+0.3
Leather.....	-1.8	+3.3	Hardware.....	-5.3	+1.2
Paper and pulp.....	-1.8	+2.9	Glass.....	-5.4	-0.9
Woolen and worsted goods.....	-2.0	+1.5	Iron and steel.....	-5.4	+4.8
Flour.....	-2.2	-1.2	Confectionery.....	-5.7	-0.8
Brass, bronze, and copper prod- ucts.....	-2.3	+5.1	Hosiery and knit goods.....	-6.2	+4.6
Structural ironwork.....	-2.3	-1.7	Clothing, women's.....	-7.0	-7.8
Lumber, millwork.....	-2.4	-1.6	Pottery.....	-8.0	+1.1
Steam fittings and steam and hot-water heating apparatus.....	-2.6	-2.6	Millinery and lace goods.....	-9.4	-3.3
Car building and repairing, elec- tric-railroad.....	-2.7	+0.1	Automobiles.....	-13.8	-9.7
Clothing, men's.....	-2.7	-2.3			
Dyeing and finishing textiles.....	-2.7	-0.4	All industries.....	-3.8	+1.1

¹ No change.

Wage Changes in Manufacturing Industries

ONE HUNDRED AND THREE ESTABLISHMENTS in 18 manufacturing industries reported wage-rate increases in the month ending July 15, 1929. These increases averaged 6.3 per cent and affected 11,068 employees, or 36 per cent of all employees in the establishments concerned.

Six establishments in four industries reported wage-rate decreases during the same period. These decreases averaged 10.4 per cent and affected 358 employees, or 40 per cent of all employees in the establishments concerned.

Fifty-six of the establishments reporting increases in wage rates were in the two car-building and repairing industries. These increases combined with those reported in February, March, April, May, and June make a total of more than 62,000 employees in 371 car shops who received wage-rate increases between January 15 and July 15.

TABLE 5.—WAGE ADJUSTMENTS OCCURRING BETWEEN JUNE 15 AND JULY 15, 1929

Industry	Establishments		Per cent of increase or decrease in wage rates		Employees affected		
	Total number reporting	Number reporting increase or decrease in wage rates	Range	Average	Total number	Per cent of employees	
						In establishments reporting increase or decrease in wage rates	In all establishments reporting
			Increases				
Baking.....	706	3	4.0-12.5	5.0	79	57	(1)
Cotton goods.....	481	3	5.0	5.0	861	100	(1)
Iron and steel.....	208	3	1.5- 6.7	2.3	187	16	(1)
Cast-iron pipe.....	43	2	6.2	6.2	1,251	100	10
Foundry and machine-shop products.....	1,054	9	2.4-20.0	7.9	317	21	(1)
Stoves.....	114	1	2.0	2.0	144	28	1
Lumber, sawmills.....	672	2	5.5-11.0	10.8	206	35	(1)
Lumber, millwork.....	337	3	5.0-10.0	6.0	38	17	(1)
Boots and shoes.....	319	1	10.0	10.0	40	78	(1)
Printing, book and job.....	373	5	6.1-12.0	8.1	49	13	(1)
Printing, newspapers.....	444	3	1.7-10.0	3.6	100	8	(1)
Petroleum refining.....	74	1	9.3	9.3	17	12	(1)
Glass.....	134	1	8.0	8.0	65	8	(1)
Cigars and cigarettes.....	222	1	7.0	7.0	80	60	(1)
Automobiles.....	228	2	6.7-16.0	6.7	502	10	(1)
Car building and repairing, electric-railroad.....	431	35	1.3-10.0	3.2	1,151	45	4
Car building and repairing, steam-railroad.....	552	21	4.1- 9.3	6.8	4,536	77	3
Electrical machinery, apparatus and supplies.....	788	7	1.0-17.8	7.5	1,445	17	1
			Decreases				
Lumber, sawmills.....	672	2	5.0-12.0	11.5	170	31	(1)
Brick, tile, and terra cotta.....	639	2	5.0-15.0	10.7	63	100	(1)
Glass.....	134	1	11.1	11.1	30	20	(1)
Cigars and cigarettes.....	222	1	8.0	8.0	95	78	(1)

¹ Less than one-half of 1 per cent.

Indexes of Employment and Pay-Roll Totals in Manufacturing Industries

INDEX NUMBERS for July, 1928, and for May, June, and July, 1929, showing relatively the variation in number of persons employed and in pay-roll totals in each of the 54 manufacturing industries surveyed by the Bureau of Labor Statistics, together with general indexes for the combined 12 groups of industries, appear in Table 6.

TREND OF EMPLOYMENT

205

TABLE 6.—INDEXES OF EMPLOYMENT AND PAY-ROLL TOTALS IN MANUFACTURING INDUSTRIES, JULY, 1928, AND MAY, JUNE, AND JULY, 1929

[Monthly average, 1926=100]

Industry	Employment				Pay-roll totals			
	1928	1929			1928	1929		
	July	May	June	July	July	May	June	July
General index	92.2	99.2	98.8	98.2	91.2	104.8	102.8	93.2
Food and kindred products	97.3	96.9	98.9	99.5	99.9	100.4	102.7	102.8
Slaughtering and meat packing.....	99.4	97.8	100.1	100.9	101.4	99.6	103.2	105.2
Confectionery.....	80.3	84.2	83.0	81.2	79.9	87.3	86.8	80.1
Ice cream.....	112.9	93.8	106.3	110.4	116.2	95.4	107.3	112.0
Flour.....	97.5	96.8	97.0	103.0	100.6	101.3	101.0	104.9
Baking.....	101.3	102.0	103.8	103.7	102.2	104.7	105.9	105.3
Sugar refining, cane.....	95.0	94.4	97.5	96.4	98.8	102.5	103.6	97.8
Textiles and their products	90.9	97.9	97.3	94.3	87.4	98.5	97.3	91.1
Cotton goods.....	89.9	96.9	96.8	93.5	84.8	97.5	95.2	90.9
Hosiery and knit goods.....	88.9	98.0	97.7	96.5	85.1	105.4	104.6	97.0
Silk goods.....	92.7	99.2	97.9	97.8	93.4	105.1	102.9	98.8
Woolen and worsted goods.....	91.0	97.4	96.1	93.9	88.5	99.7	97.0	93.0
Carpets and rugs.....	95.4	107.6	106.1	102.5	85.7	102.8	99.8	93.0
Dyeing and finishing textiles.....	94.8	103.1	101.6	99.4	91.6	106.5	100.8	96.1
Clothing men's.....	90.5	88.1	93.7	93.6	89.2	82.6	92.9	90.3
Shirts and collars.....	86.9	92.6	91.1	89.0	79.7	87.4	86.7	88.4
Clothing women's.....	95.5	110.7	104.2	93.7	89.9	104.6	97.5	81.5
Millinery and lace goods.....	82.9	97.3	91.9	84.0	77.6	95.6	91.9	76.1
Iron and steel and their products	91.0	101.5	101.7	101.1	89.1	108.4	106.8	101.9
Iron and steel.....	89.6	97.1	97.2	96.6	86.5	105.9	104.0	97.6
Cast-iron pipe.....	80.8	76.0	78.6	80.4	76.0	75.0	78.3	81.8
Structural ironwork.....	95.7	100.4	102.3	104.3	97.2	103.6	104.7	104.3
Foundry and machine-shop products.....	92.7	108.3	108.6	108.4	91.8	115.4	113.5	109.7
Hardware.....	84.8	93.4	92.8	91.6	81.9	97.1	95.9	89.6
Machine tools.....	100.9	130.3	132.3	133.2	103.5	143.1	144.1	140.4
Steam fittings and steam and hot-water heating apparatus.....	80.7	78.2	76.6	72.8	80.4	79.6	76.4	70.8
Stoves.....	81.9	92.9	92.2	85.7	74.7	91.1	89.0	80.3
Lumber and its products	87.3	89.0	89.8	90.3	87.4	91.3	90.7	90.3
Lumber, sawmills.....	87.2	88.4	89.6	89.5	88.6	91.5	90.6	91.7
Lumber, millwork.....	87.9	87.4	87.4	87.2	87.7	88.3	87.9	85.7
Furniture.....	87.3	91.7	92.0	94.3	83.4	93.0	92.9	90.6
Leather and its products	93.1	89.3	88.5	93.6	91.2	85.1	86.8	94.4
Leather.....	95.1	89.2	90.0	93.0	92.5	90.3	92.2	93.6
Boots and shoes.....	92.6	89.3	88.1	93.8	90.6	83.6	85.2	94.6
Paper and printing	93.0	99.9	100.2	100.6	99.0	105.8	105.2	103.1
Paper and pulp.....	93.5	95.0	95.7	95.4	91.1	98.1	97.7	95.7
Paper boxes.....	90.2	92.5	93.2	94.2	94.0	100.3	99.7	100.0
Printing, book and job.....	98.8	100.9	100.9	102.8	100.8	106.0	104.8	102.6
Printing, newspapers.....	104.0	107.5	107.7	106.9	105.2	112.8	112.6	109.8
Chemicals and allied products	87.1	97.4	94.4	95.8	91.6	101.9	99.9	100.4
Chemicals.....	96.1	102.0	101.3	100.4	98.9	107.6	105.8	103.4
Fertilizers.....	66.1	90.1	63.6	67.4	74.7	92.7	73.6	76.7
Petroleum refining.....	84.9	94.7	96.4	99.4	88.4	98.0	98.9	101.6
Stone, clay, and glass products	90.6	89.9	90.7	88.1	87.8	90.1	90.8	83.5
Cement.....	92.6	83.7	85.5	86.0	95.4	85.1	87.6	85.0
Brick, tile, and terra cotta.....	90.9	85.8	87.6	88.6	88.0	84.3	86.2	82.9
Pottery.....	87.2	96.3	93.8	87.1	76.5	93.4	90.5	77.4
Glass.....	91.0	96.0	96.4	88.9	89.2	99.9	99.5	86.8
Metal products, other than iron and steel	91.7	100.8	98.9	97.4	90.3	109.1	104.6	100.1
Stamped and enameled ware.....	87.2	92.7	91.1	90.4	82.8	96.3	93.4	88.9
Brass, bronze, and copper products.....	93.6	104.6	102.6	100.8	92.7	114.1	109.1	104.6
Tobacco products	90.2	92.3	93.5	92.5	89.7	91.0	93.6	92.9
Chewing and smoking tobacco and snuff.....	86.7	85.5	87.1	83.0	87.0	84.8	91.4	85.8
Cigars and cigarettes.....	90.5	93.2	94.3	93.7	90.0	91.8	93.9	93.8

TABLE 6.—INDEXES OF EMPLOYMENT AND PAY-ROLL TOTALS IN MANUFACTURING INDUSTRIES, JULY, 1928, AND MAY, JUNE, AND JULY, 1929—Continued

Industry	Employment				Pay-roll totals			
	1928	1929			1928	1929		
	July	May	June	July	July	May	June	July
Vehicles for land transportation	97.0	107.5	103.1	101.7	96.0	118.7	109.8	98.4
Automobiles.....	113.7	133.0	123.4	120.5	112.1	143.1	127.4	107.2
Carriages and wagons.....	74.9	81.3	79.4	81.0	82.4	85.6	83.1	85.1
Car building and repairing, electric-railroad.....	94.1	93.4	90.6	92.8	94.7	95.6	93.8	93.6
Car building and repairing, steam-railroad.....	84.0	85.8	85.9	85.7	83.0	95.5	93.0	89.7
Miscellaneous industries	89.8	113.1	115.3	116.3	89.2	117.7	118.5	115.7
Agricultural implements.....	104.9	131.6	126.9	122.2	108.0	140.1	131.3	121.9
Electrical machinery, apparatus, and supplies.....	90.7	118.0	123.1	126.2	92.3	123.1	127.7	127.0
Pianos and organs.....	68.0	66.5	64.6	61.6	63.8	63.0	61.8	56.3
Rubber boots and shoes.....	97.8	91.6	93.2	96.5	93.9	95.4	97.8	99.8
Automobile tires.....	106.9	114.7	113.9	111.8	107.4	119.4	113.1	106.3
Shipbuilding.....	80.2	108.6	107.4	107.5	80.0	112.0	113.2	109.8

Table 7 shows the general index of employment in manufacturing industries and the general index of pay-roll totals, by months, from January, 1923, to July, 1929.

Following Table 7 is a chart which represents the 54 industries combined and shows, by months, the course of pay-roll totals as well as the course of employment. It includes the years 1926 and 1927, as well as 1928, and January, February, March, April, May, June, and July, 1929.

TABLE 7.—GENERAL INDEXES OF EMPLOYMENT AND PAY-ROLL TOTALS IN MANUFACTURING INDUSTRIES, JANUARY, 1923, TO JULY, 1929

[Monthly average, 1926=100]

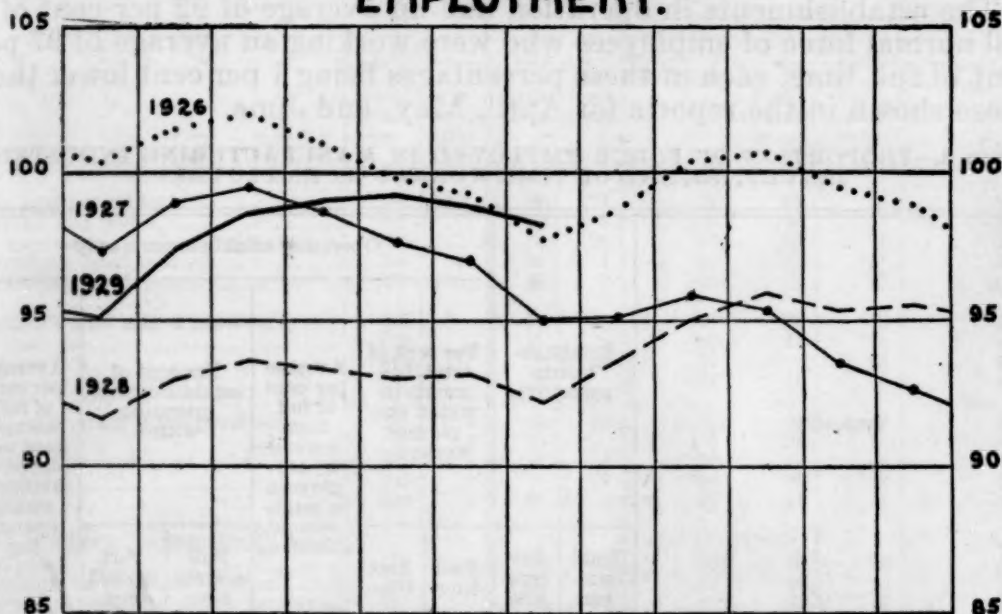
Month	Employment							Pay-roll totals						
	1923	1924	1925	1926	1927	1928	1929	1923	1924	1925	1926	1927	1928	1929
January.....	106.6	103.8	97.9	100.4	97.3	91.6	95.2	95.8	98.6	93.9	98.0	94.9	89.6	94.5
February.....	108.4	105.1	99.7	101.5	99.0	93.0	97.4	99.4	103.8	99.3	102.2	100.6	93.9	101.8
March.....	110.8	104.9	100.4	102.0	99.5	93.7	98.6	104.7	103.3	100.8	103.4	102.0	95.2	103.9
April.....	110.8	102.8	100.2	101.0	98.6	93.3	99.1	105.7	101.1	98.3	101.5	100.8	93.8	104.6
May.....	110.8	98.8	98.9	99.8	97.6	93.0	99.2	109.4	96.5	98.5	99.8	99.8	94.1	104.8
June.....	110.9	95.6	98.0	99.3	97.0	93.1	98.8	109.3	90.8	95.7	99.7	97.4	94.2	102.8
July.....	109.2	92.3	97.2	97.7	95.0	92.2	98.2	104.3	84.3	93.5	95.2	93.0	91.2	98.2
August.....	108.5	92.5	97.8	98.7	95.1	93.6	-----	103.7	87.2	95.4	98.7	95.0	94.2	-----
September.....	108.6	94.3	98.9	100.3	95.8	95.0	-----	104.4	89.8	94.4	99.3	94.1	95.4	-----
October.....	108.1	95.6	100.4	100.7	95.3	95.9	-----	106.8	92.4	100.4	102.9	95.2	99.0	-----
November.....	107.4	95.5	100.7	99.5	93.5	95.4	-----	105.4	91.4	100.4	99.6	91.6	96.1	-----
December.....	105.4	97.3	100.8	98.9	92.6	95.5	-----	103.2	95.7	101.6	99.8	93.2	97.7	-----
Average..	108.8	98.2	99.2	100.0	96.4	93.8	98.1	104.3	94.6	97.7	100.0	96.5	94.5	101.5

¹ Average for 7 months.

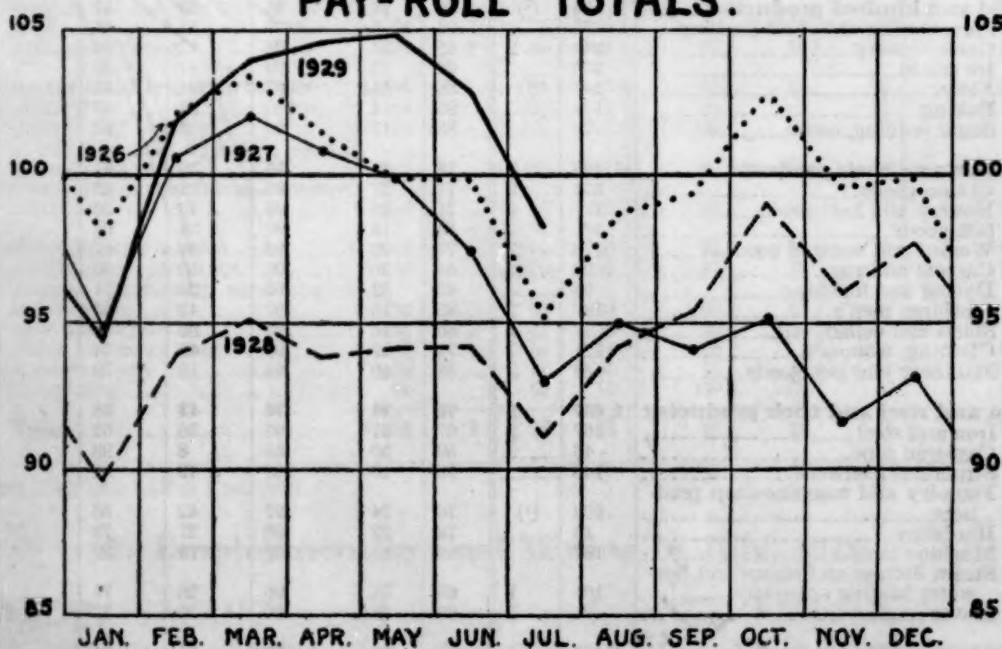
MANUFACTURING INDUSTRIES. MONTHLY INDEXES, 1926-1929.

MONTHLY AVERAGE 1926 = 100.

EMPLOYMENT.



PAY-ROLL TOTALS.



Force Employed in Manufacturing Industries in July, 1929, and Time Worked by Employees

NINE THOUSAND NINE HUNDRED AND FIFTY-EIGHT ESTABLISHMENTS in the 54 manufacturing industries reported as to force employed in July, 1929, and as to working time of employees. Thirty-nine per cent of the establishments had a full normal force of employees, 60 per cent were working with reduced forces, and 1 per cent were idle; employees in 81 per cent of the establishments were working full time, and employees in 18 per cent were working part time.

The establishments in operation had an average of 92 per cent of a full normal force of employees who were working an average of 97 per cent of full time, each of these percentages being 1 per cent lower than those shown in the reports for April, May, and June.

TABLE 8.—PROPORTION OF FORCE EMPLOYED IN MANUFACTURING INDUSTRIES IN JULY, 1929, AND OF TIME WORKED BY EMPLOYEES

Industry	Establishments reporting		Operating establishments only					
			Per cent of establishments in which employees worked—		Average per cent of full time worked by employees in establishments operating	Per cent of establishments operating with—		Average per cent of full normal force employed in establishments operating
			Full time	Part time		Full normal force	Part normal force	
Food and kindred products	1,463	(1)	88	12	96	43	57	88
Slaughtering and meat packing	152		94	6	100	55	45	92
Confectionery	243	2	65	34	94	12	86	65
Ice cream	230		92	8	99	41	59	90
Flour	247	(1)	86	14	97	46	53	95
Baking	579		96	4	100	53	47	100
Sugar refining, cane	12		83	17	96	8	92	86
Textiles and their products	1,490	2	73	25	96	36	61	88
Cotton goods	414	2	71	27	95	32	66	85
Hosiery and knit goods	177	4	71	25	95	40	56	89
Silk goods	171	1	83	16	97	30	61	93
Woolen and worsted goods	172	2	77	20	96	30	67	83
Carpets and rugs	22		64	36	96	50	50	104
Dyeing and finishing	90		47	53	91	29	71	86
Clothing, men's	197	2	83	15	97	43	55	91
Shirts and collars	74	4	80	16	98	50	46	99
Clothing, women's	121	7	71	22	96	40	54	91
Millinery and lace goods	52	2	58	40	94	19	79	81
Iron and steel and their products	1,657	1	75	24	96	42	58	94
Iron and steel	167	2	67	31	95	36	62	91
Cast-iron pipe	40		50	50	85	8	93	79
Structural ironwork	146		90	10	100	49	51	98
Foundry and machine-shop products	922	(1)	76	24	97	42	58	96
Hardware	49		78	22	96	27	73	84
Machine tools	137		89	11	101	73	27	123
Steam fittings and steam and hot-water heating apparatus	101	1	65	34	96	28	71	79
Stoves	95	2	60	38	90	26	72	89
Lumber and its products	1,187	1	78	22	97	35	64	88
Lumber, sawmills	546	1	81	19	97	40	60	88
Lumber, millwork	276	1	75	25	97	25	75	78
Furniture	365	1	76	23	97	35	64	92
Leather and its products	383	1	84	15	98	43	56	93
Leather	112	1	84	15	98	36	63	84
Boots and shoes	271	1	84	15	98	45	54	95

¹ Less than one-half of 1 per cent.

TABLE 8.—PROPORTION OF FORCE EMPLOYED IN MANUFACTURING INDUSTRIES IN JULY, 1929, AND OF TIME WORKED BY EMPLOYEES—Continued

Industry	Establishments reporting		Operating establishments only					
			Per cent of establishments in which employees worked—		Average per cent of full time worked by employees in establishments operating	Per cent of establishments operating with—		Average per cent of full normal force employed in establishments operating
			Full time	Part time		Full normal force	Part normal force	
Paper and printing	872	(1)	89	11	99	49	50	97
Paper and pulp.....	169	1	90	9	100	43	57	94
Paper boxes.....	152		74	26	97	29	71	88
Printing, book and job.....	284	(1)	93	7	99	42	57	99
Printing, newspapers.....	267		93	7	100	73	27	101
Chemicals and allied products	285	(1)	86	14	98	21	79	81
Chemicals.....	112		91	9	99	44	56	95
Fertilizers.....	140	1	79	21	97	1	98	40
Petroleum refining.....	33		100		100	24	76	89
Stone, clay, and glass products	784	2	88	10	98	37	60	86
Cement.....	76	1	99		100	34	64	80
Brick, tile, and terra cotta.....	501	2	89	8	98	37	61	88
Pottery.....	105	1	71	28	94	37	62	86
Glass.....	102	4	90	6	99	44	52	90
Metal products, other than iron and steel	190		84	16	98	40	60	92
Stamped and enameled ware.....	59		92	8	99	36	64	90
Brass, bronze, and copper products.....	131		81	19	98	42	58	93
Tobacco products	223	2	70	28	95	34	64	93
Chewing and smoking tobacco and snuff.....	24		71	29	96	33	67	81
Cigars and cigarettes.....	199	3	69	28	95	34	63	95
Vehicles for land transportation	1,080		84	16	99	30	70	94
Automobiles.....	183		88	12	99	40	60	102
Carriages and wagons.....	46		78	22	96	17	83	72
Car building and repairing, electric-railroad.....	347		83	17	99	38	62	92
Car building and repairing, steam-railroad.....	504		85	15	98	23	77	81
Miscellaneous industries	344	(1)	82	18	97	47	53	102
Agricultural implements.....	51		76	24	97	35	65	96
Electrical machinery, apparatus, and supplies.....	135		90	10	99	61	39	110
Pianos and organs.....	61	2	61	38	90	20	79	75
Rubber boots and shoes.....	7		86	14	99	71	29	92
Automobile tires.....	29		76	24	96	41	59	105
Shipbuilding.....	61		90	10	100	51	49	85
Total	9,958	1	81	18	97	39	60	92

¹ Less than one-half of 1 per cent.

2. Employment in Coal Mining in July, 1929

EMPLOYMENT in coal mining—anthracite and bituminous coal combined—decreased 4.2 per cent in July, 1929, as compared with June, and pay-roll totals were 10.7 per cent smaller. The 1,317 mines reporting had in July 274,205 employees, whose combined earnings in one week were \$6,426,650.

Anthracite

ADVERSE SEASONAL MARKET CONDITIONS still prevailed in the anthracite industry and employment fell off 10.4 per cent in July while pay-roll totals were decreased 19.8 per cent.

All anthracite mines reported are in Pennsylvania—the Middle Atlantic division. The details for June and July are shown in Table 1.

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL ANTHRACITE MINES IN JUNE AND JULY, 1929

Geographic division	Mines	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		June, 1929	July, 1929		June, 1929	July, 1929	
Middle Atlantic ¹	162	104,632	93,716	-10.4	\$2,841,629	\$2,378,454	-19.8

¹ See footnote 4, p. 200.

Bituminous Coal

EMPLOYMENT in bituminous coal mines was 0.7 per cent lower in July, 1929, than in June, and pay-roll totals were 4.8 per cent lower. These figures are based upon reports from 1,155 mines, in which there were in July 180,489 employees, whose combined earnings in one week were \$4,148,196.

The South Atlantic, West South Central, and Pacific geographic divisions each reported increased employment, while there were fewer employees in the five remaining divisions for which bituminous coal is reported.

Details for each geographic division are shown in Table 2.

TABLE 2.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL BITUMINOUS COAL MINES IN JUNE AND JULY, 1929

Geographic division ¹	Mines	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		June, 1929	July, 1929		June, 1929	July, 1929	
New England.....							
Middle Atlantic.....	368	60,176	59,708	-0.8	\$1,521,633	\$1,428,669	-6.1
East North Central.....	169	26,902	26,553	-1.3	636,860	602,161	-5.4
West North Central.....	53	4,058	3,885	-4.3	94,445	83,843	-11.2
South Atlantic.....	249	40,121	40,258	+0.3	979,335	940,435	-4.0
East South Central.....	206	39,621	39,434	-0.5	825,277	794,861	-3.7
West South Central.....	26	1,341	1,362	+1.6	27,687	25,404	-8.2
Mountain.....	74	8,179	7,942	-2.9	233,543	233,109	-0.2
Pacific.....	10	1,343	1,347	+0.3	38,499	39,714	+3.2
All divisions.....	1,155	181,741	180,489	-0.7	4,357,279	4,148,196	-4.8

¹ See footnotes 3 to 11, p. 200.

3. Employment in Metalliferous Mining in July, 1929

EMPLOYMENT in metalliferous mining was 2.2 per cent lower in July, 1929, than in June and pay-roll totals were 6.3 per cent lower. These percentages are based on reports from 354 mines which in July had 62,346 employees whose combined earnings in one week were \$1,825,632.

The East South Central division reported a gain in employment of 5 per cent, while the West South Central division reported a decrease of 6.7 per cent. Details for each division from which metalliferous mining is reported are shown in the following table:

COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL **METALLIFEROUS MINES** IN JUNE AND JULY, 1929

Geographic division ¹	Mines	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		June, 1929	July, 1929		June, 1929	July, 1929	
New England.....							
Middle Atlantic.....	6	958	930	-2.9	\$26,546	\$25,553	-3.7
East North Central.....	41	11,197	11,345	+1.3	299,527	298,357	-0.4
West North Central.....	58	8,348	8,557	+2.5	248,488	251,555	+1.2
South Atlantic.....							
East South Central.....	13	4,051	4,255	+5.0	82,641	83,889	+1.5
West South Central.....	71	4,899	4,570	-6.7	123,167	116,888	-5.1
Mountain.....	142	32,358	30,674	-5.2	1,105,490	988,308	-10.6
Pacific.....	23	1,969	2,015	+2.3	62,259	61,082	-1.9
All divisions.....	354	63,780	62,346	-2.2	1,948,118	1,825,632	-6.3

¹ See footnotes 3 to 11, p. 200.

4. Employment in Quarrying and Nonmetallic Mining in July, 1929

EMPLOYMENT in this industry was 1.8 per cent lower in July, 1929, than in June, and pay-roll totals were 5.2 per cent smaller, as shown by reports from 656 establishments having in July 38,374 employees whose combined earnings in one week were \$1,003,453. Eight of the nine geographic divisions reported decreased employment in July, the decreases ranging from 0.1 per cent in the Middle Atlantic States to 4 per cent in the East North Central division; the East South Central division reported a gain of 3.6 per cent in number of persons employed.

Details for each division are shown in the following table:

COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL **QUARRIES AND NONMETALLIC MINES** IN JUNE AND JULY, 1929

Geographic division ¹	Establishments	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		June, 1929	July, 1929		June, 1929	July, 1929	
New England.....	100	5,892	5,851	-0.7	\$180,354	\$181,663	+0.7
Middle Atlantic.....	103	7,695	7,684	-0.1	232,555	228,942	-1.6
East North Central.....	195	10,537	10,115	-4.0	328,483	290,254	-11.6
West North Central.....	61	2,483	2,396	-3.5	60,571	60,359	-0.4
South Atlantic.....	89	5,964	5,786	-3.0	108,755	99,951	-8.1
East South Central.....	49	2,914	3,018	+3.6	48,088	47,365	-1.5
West South Central.....	25	1,876	1,831	-2.4	49,271	47,779	-3.0
Mountain.....	9	205	204	-0.5	5,363	4,819	-10.1
Pacific.....	25	1,519	1,489	-2.0	45,223	42,321	-6.4
All divisions.....	656	39,085	38,374	-1.8	1,058,663	1,003,453	-5.2

¹ See footnotes 3 to 11, p. 200.

5. Employment in Public Utilities in July, 1929

EMPLOYMENT in public utilities increased 1.2 per cent in July, 1929, as compared with June, and pay-roll totals were 2.1 per cent greater. Reports were received from 9,017 establishments having, in July, 718,539 employees whose combined earnings in one week were \$21,275,568.

Details for each geographic division are presented in the following table:

COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL PUBLIC UTILITIES ESTABLISHMENTS IN JUNE AND JULY, 1929

Geographic division ¹	Estab- lish- ments	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		June, 1929	July, 1929		June, 1929	July, 1929	
New England.....	320	39,461	40,210	+1.9	\$1,301,804	\$1,335,732	+2.6
Middle Atlantic.....	1,446	206,102	207,762	+0.8	6,434,746	6,532,637	+1.5
East North Central.....	1,637	191,937	194,313	+1.2	5,833,236	5,934,883	+1.7
West North Central.....	1,462	73,663	75,451	+2.4	1,960,303	2,033,445	+3.7
South Atlantic.....	823	53,602	54,790	+2.2	1,483,153	1,516,754	+2.3
East South Central.....	658	22,466	22,086	-1.7	518,674	527,322	+1.7
West South Central.....	1,034	42,594	43,097	+1.2	1,029,620	1,026,562	-0.3
Mountain.....	570	17,785	17,601	-1.0	450,790	467,532	+3.7
Pacific.....	1,067	62,455	63,229	+1.2	1,834,026	1,900,701	+3.6
All divisions.....	9,017	710,065	718,539	+1.2	20,846,352	21,275,568	+2.1

¹ See footnotes 3 to 11, p. 200.

6. Employment in Wholesale and Retail Trade in July, 1929

EMPLOYMENT in 6,630 establishments—wholesale and retail trade combined—was 2.8 per cent lower in July, 1929, than in June and pay-roll totals were 1.6 per cent smaller. These establishments in July had 252,796 employees whose combined earnings in one week were \$6,475,040.

The establishments reporting are so carefully selected, from every State and from nearly every class of wholesale and retail trade, as to be reasonably representative of general conditions in each geographic division and consequently in the United States as a whole.

Wholesale Trade

EMPLOYMENT in wholesale trade alone increased 1.2 per cent in July, 1929, as compared with June and pay-roll totals increased 1.9 per cent, as shown by reports from 1,530 establishments having in July 54,827 employees whose combined earnings in one week were \$1,672,061.

Details by geographic divisions are given in Table 1.

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL WHOLESALE TRADE ESTABLISHMENTS IN JUNE AND JULY, 1929

Geographic division ¹	Estab- lish- ments	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		June, 1929	July, 1929		June, 1929	July, 1929	
New England.....	104	2,601	2,708	+4.1	\$78,259	\$80,749	+3.2
Middle Atlantic.....	246	8,962	9,180	+2.4	285,647	287,595	+0.7
East North Central.....	229	12,080	12,161	+0.7	372,372	377,615	+1.4
West North Central.....	142	9,386	9,321	-0.7	263,845	267,973	+1.6
South Atlantic.....	258	4,213	4,214	+(?)	121,086	124,283	+2.6
East South Central.....	54	1,629	1,682	+3.3	46,459	48,212	+3.8
West South Central.....	188	5,377	5,365	-0.2	147,468	151,062	+2.4
Mountain.....	54	1,497	1,524	+1.8	49,205	51,264	+4.2
Pacific.....	255	8,446	8,672	+2.7	277,232	283,308	+2.2
All divisions.....	1,530	54,191	54,827	+1.2	1,641,573	1,672,661	+1.9

¹ See footnotes 3 to 11, p. 200.² Less than one-tenth of 1 per cent.

Retail Trade

EMPLOYMENT in retail trade decreased 3.8 per cent in July, 1929, as compared with June, and pay-roll totals decreased 2.7 per cent, as shown by returns from 5,100 establishments having in July 197,969 employees whose combined earnings were \$4,802,979.

The New England division alone of the nine geographic divisions showed increased employment in July.

Details for each division are shown in Table 2.

TABLE 2.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL RETAIL TRADE ESTABLISHMENTS IN JUNE AND JULY, 1929

Geographic division ¹	Estab- lish- ments	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		June, 1929	July, 1929		June, 1929	July, 1929	
New England.....	72	8,559	8,762	+2.4	\$197,321	\$199,373	+1.0
Middle Atlantic.....	288	39,700	37,362	-5.9	1,015,607	975,270	-4.0
East North Central.....	1,842	72,396	69,663	-3.8	1,858,794	1,809,159	-2.7
West North Central.....	567	15,858	14,983	-5.5	333,769	329,347	-1.3
South Atlantic.....	506	18,164	17,479	-3.8	402,059	386,555	-3.9
East South Central.....	319	5,561	5,407	-2.8	108,759	107,040	-1.6
West South Central.....	141	7,897	7,631	-3.4	154,912	149,063	-3.8
Mountain.....	59	2,201	2,112	-4.0	41,925	39,732	-5.2
Pacific.....	1,216	35,515	34,570	-2.7	825,038	807,440	-2.1
All divisions.....	5,100	205,851	197,969	-3.8	4,938,184	4,802,979	-2.7

¹ See footnotes 3 to 11, p. 200.

7. Employment in Hotels in July, 1929

EMPLOYMENT in hotels increased 1.8 per cent in July, 1929, as compared with June, and pay-roll totals increased 1.1 per cent.

The New England, Middle Atlantic, East North Central, Mountain, and Pacific divisions each showed increased employment, owing to the large number of summer resort hotels in these districts.

Per capita earnings, obtained by dividing the total number of employees into the total amount of pay roll, should not be interpreted as

being the entire earnings of hotel employees. The pay-roll totals here reported are cash payments only, with no regard to the value of board or room furnished employees, and of course no satisfactory estimate can be made of additional recompense in the way of tips. The additions to the money wages granted vary greatly, not only among localities but among hotels in one locality and among employees in one hotel. Some employees are furnished board and room, others are given board only for 1, 2, or 3 meals, while the division of tips is made in many ways.

Per capita earnings are further reduced by the considerable amount of part-time employment in hotels caused by conventions and banquets or other functions.

The details for each geographic division are shown in the table following:

COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL HOTELS
IN JUNE AND JULY, 1929

Geographic division ¹	Hotels	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		June, 1929	July, 1929		June, 1929	July, 1929	
New England.....	130	9,409	10,568	+12.3	\$151,804	\$165,132	+8.8
Middle Atlantic.....	337	43,863	44,833	+2.2	790,572	793,604	+0.4
East North Central.....	338	31,904	31,957	+0.2	555,206	556,029	+0.1
West North Central.....	216	13,951	13,533	-3.0	198,942	196,098	-1.4
South Atlantic.....	167	11,351	10,713	-5.6	166,543	159,169	-4.4
East South Central.....	73	5,711	5,585	-2.2	72,446	68,466	-5.5
West South Central.....	108	7,897	7,740	-2.0	107,506	104,890	-2.4
Mountain.....	110	4,207	5,431	+29.1	69,275	86,490	+24.9
Pacific.....	349	17,174	17,687	+3.0	325,834	334,461	+2.6
All divisions.....	1,828	145,467	148,047	+1.8	2,438,128	2,464,339	+1.1

¹ See footnotes 3 to 11, p. 200.

8. Employment in Canning and Preserving in July, 1929

EMPLOYMENT IN CANNING AND PRESERVING was 65.5 per cent greater in July, 1929, than in June and pay-roll totals were 51.9 per cent higher, July marking the beginning of the season for taking care of summer fruits and vegetables.

Probably no industrial group has wider variations in employment than this one, as will be shown from month to month in the several geographic divisions, each division containing classes of highly specialized products, many of which have seasons extending over 1, 2, or 3 months only.

Variations in employment among the several districts in July ranged from an *increase* of 307 per cent in the Mountain geographic division to a *decrease* of 15.4 per cent in the East South Central division.

In addition to the establishments included in the following table 117 establishments reported that their operations would not begin until August, or September, or later. These plants not yet operating are scattered through every geographic division, although nearly one-third of them are in the South Atlantic States.

COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL CANNING AND PRESERVING ESTABLISHMENTS IN JUNE AND JULY, 1929

Geographic division ¹	Estab-lish-ments	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		June, 1929	July, 1929		June, 1929	July, 1929	
New England.....	28	1,970	2,100	+6.6	\$24,367	\$28,712	+17.8
Middle Atlantic.....	35	7,370	7,042	-4.5	150,958	137,353	-9.0
East North Central.....	108	3,228	7,401	+129.3	55,457	105,652	+90.5
West North Central.....	30	830	1,716	+106.7	14,751	26,440	+79.2
South Atlantic.....	41	2,118	2,771	+30.8	24,552	28,291	+15.2
East South Central.....	3	52	44	-15.4	536	457	-14.7
West South Central.....	4	71	116	+63.4	981	918	-6.4
Mountain.....	28	472	1,921	+307.0	9,839	27,054	+175.0
Pacific.....	76	8,813	18,145	+105.9	130,475	270,812	+107.6
All divisions.....	353	24,924	41,256	+65.5	411,916	625,689	+51.9

¹ See footnotes 3 to 11, p. 200.

Employment on Class I Steam Railroads in the United States

THE monthly trend of employment from January, 1923, to June, 1929, on Class I railroads—that is, all roads having operating revenues of \$1,000,000 or over—is shown by the index numbers published in Table 1. These index numbers are constructed from monthly reports of the Interstate Commerce Commission, using the monthly average for 1926 as 100.

TABLE 1.—INDEX OF EMPLOYMENT ON CLASS I STEAM RAILROADS IN THE UNITED STATES, JANUARY, 1923, TO JUNE, 1929

[Monthly average, 1926=100]

Month	1923	1924	1925	1926	1927	1928	1929
January.....	98.3	96.9	95.6	95.8	95.5	89.3	88.2
February.....	98.6	97.0	95.4	96.0	95.3	89.0	88.9
March.....	100.5	97.4	95.2	96.7	95.8	89.9	90.1
April.....	102.0	98.9	96.6	98.9	97.4	91.7	92.2
May.....	105.0	99.2	97.8	100.2	99.4	94.5	94.9
June.....	107.1	98.0	98.6	101.6	100.9	95.9	96.1
July.....	108.2	98.1	99.4	102.9	101.0	95.6	-----
August.....	109.4	99.0	99.7	102.7	99.5	95.7	-----
September.....	107.8	99.7	99.9	102.8	99.1	95.3	-----
October.....	107.3	100.8	100.7	103.4	98.9	95.3	-----
November.....	105.2	99.0	99.1	101.2	95.7	92.9	-----
December.....	99.4	96.0	97.1	98.2	91.9	89.7	-----
Average.....	104.1	98.3	97.9	100.0	97.5	92.9	¹ 91.7

¹ Average for 6 months.

Table 2 shows the total number of employees on the 15th day each of June, 1928, and May and June, 1929, and pay-roll totals for the entire month of each month considered, by principal occupational groups and various important occupations.

In these tabulations data for the occupational group reported as "executives, officials, and staff assistants" are omitted.

TABLE 2.—EMPLOYMENT AND EARNINGS OF RAILROAD EMPLOYEES—JUNE, 1928, MAY, 1929, AND JUNE, 1929

[From monthly reports of Interstate Commerce Commission. As data for only the more important occupations are shown separately, the group totals are not the sum of the items under the respective groups]

Occupation	Number of employees at middle of month			Total earnings		
	June, 1928	May, 1929	June, 1929	June, 1928	May, 1929	June, 1929
Professional, clerical, and general	271,403	270,145	271,284	\$39,265,921	\$39,834,672	\$39,299,958
Clerks.....	155,101	153,323	153,858	21,325,474	21,525,098	21,067,950
Stenographers and typists.....	24,758	24,738	24,755	3,208,779	3,248,701	3,209,817
Maintenance of way and structures	456,296	442,087	462,381	42,532,329	42,034,659	42,922,484
Laborers, extra gang and work train.....	82,351	76,841	86,026	6,531,955	6,222,706	6,848,985
Laborers, track and roadway section.....	237,899	230,638	238,302	17,682,436	17,256,641	17,354,263
Maintenance of equipment and stores	464,037	456,358	454,915	60,955,604	65,136,374	62,462,778
Carmen.....	100,967	99,521	99,434	15,014,951	16,396,854	15,659,761
Machinists.....	56,022	54,992	54,519	8,739,115	9,513,721	9,003,604
Skilled trades helpers.....	101,858	101,243	101,395	11,295,939	12,478,340	11,982,219
Laborers (shops, engine houses, power plants, and stores).....	37,919	37,206	36,992	3,547,424	3,663,750	3,509,281
Common laborers (shops, engine houses, power plants, and stores).....	53,191	52,273	52,320	4,327,052	4,412,250	4,261,795
Transportation, other than train, engine, and yard	198,204	195,902	197,632	24,840,225	25,302,994	24,763,061
Station agents.....	29,897	29,310	29,311	4,736,990	4,778,845	4,616,158
Telegraphers, telephoners, and towermen.....	23,400	23,202	23,227	3,578,121	3,688,941	3,571,506
Truckers (stations, warehouses, and platforms).....	33,995	34,342	33,864	3,263,570	3,409,599	3,241,798
Crossing and bridge flagmen and gatemen.....	21,394	20,665	20,709	1,642,943	1,600,482	1,594,046
Transportation (yard masters, switch tenders, and hostlers)	22,030	21,671	21,718	4,312,183	4,321,138	4,267,384
Transportation, train, and engine	306,892	311,237	311,274	61,262,531	60,135,952	64,042,679
Road conductors.....	35,169	34,999	35,363	8,197,608	8,811,126	8,609,180
Road brakemen and flagmen.....	69,504	69,100	69,144	11,778,373	12,676,323	12,302,678
Yard brakemen and yard helpers.....	50,860	52,851	52,357	8,847,392	9,766,187	9,356,047
Road engineers and motormen.....	41,380	41,437	41,700	11,143,933	11,838,493	11,528,434
Road firemen and helpers.....	42,271	42,063	42,311	8,308,968	8,701,555	8,475,093
All employees	1,718,862	1,697,400	1,719,274	233,165,793	242,765,789	237,758,344

Changes in Employment and Pay Rolls in Various States

THE following data as to changes in employment and pay rolls have been compiled from reports received from the various State labor offices:

PER CENT OF CHANGE IN EMPLOYMENT AND PAY ROLLS IN SPECIFIED STATES

Monthly period

State, and industry group	Per cent of change, May to June, 1929		State, and industry group	Per cent of change, June to July, 1929	
	Employment	Pay roll		Employment	Pay roll
Illinois			Maryland—Continued		
Stone, clay, and glass products.....	-1.7	-3.5	Tobacco products.....	-2.2	-4.3
Metals, machinery, and conveyances.....	-4	+5	Machinery (not including transportation equipment).....	-1.1	-2.7
Wood products.....	-2.3	+3.1	Musical instruments.....	-10.2	-5.1
Furs and leather goods.....	+3.3	+10.5	Transportation equipment.....	-4.0	+5.2
Chemicals, oils, paints, etc.....	-3	-2.9	Car building and repairing.....	-2	-7.4
Printing and paper goods.....	+8	-2	Miscellaneous.....	-14.0	-20.1
Textiles.....	+1	+1.7	All manufacturing.....	-1.0	-4.3
Clothing and millinery.....	+8.1	+15.0	Retail department stores.....	-6.2	-2.4
Food, beverages, and tobacco.....	+7	+3.5	Wholesale establishments.....	-7.5	-5.4
Miscellaneous.....	+6.6	+4.3	Public utilities.....	+2.4	-1.7
All manufacturing.....	+4	+1.7	Coal mines.....	-8.3	-10.0
Trade, wholesale and retail.....	-0	+6.1	Hotels.....	-6.9	-7
Services.....	+1.4	-2.0	Quarries.....	-5.4	-14.7
Public utilities.....	+8	+1.9			
Coal mining.....	-5.4	-21.7			
Building and contracting.....	+8.6	+7.5			
All industries.....	+5	+1.5			
Iowa			Massachusetts		
	June to July, 1929			May, 1929	June, 1929
Food and kindred products.....	+0.1	-----	Boots and shoes.....	65.5	57.9
Textiles.....	-3.1	-----	Bread and other bakery products.....	105.2	110.6
Iron and steel works.....	-7	-----	Cars and general shop construction and repairs, steam railroads.....	69.5	69.7
Lumber products.....	-7.6	-----	Clothing, men's and women's.....	97.4	93.3
Leather products.....	-1.2	-----	Confectionery.....	73.6	76.4
Paper products, printing, and publishing.....	+2	-----	Cotton goods.....	59.4	58.5
Patent medicines, chemicals, and compounds.....	-3.4	-----	Dyeing and finishing textiles.....	106.7	105.0
Stone and clay products.....	+5.3	-----	Electrical machinery, apparatus, and supplies.....	105.4	104.9
Tobacco and cigars.....	-2.4	-----	Foundry and machine-shop products.....	72.6	71.8
Railway car shops.....	+7	-----	Furniture.....	102.4	103.1
Various industries.....	-1	-----	Hosiery and knit goods.....	67.5	68.6
All industries.....	-8	-----	Jewelry.....	100.4	99.3
Maryland			Leather, tanned, curried, and finished.....	79.2	80.3
Food products.....	-1.9	-3.8	Paper and wood pulp.....	94.5	94.0
Textiles.....	-7	-2.6	Printing and publishing.....	108.1	109.6
Iron and steel, and their products.....	+7	+1.8	Rubber footwear.....	86.7	88.5
Lumber and its products.....	-4	-3.3	Rubber goods, tires, and tubes.....	83.1	79.1
Leather and its products.....	+9	-8.2	Silk goods.....	97.6	95.7
Rubber tires.....	+4	-27.2	Textile machinery and parts.....	57.5	58.8
Paper and printing.....	-6	-4.1	Woolen and worsted goods.....	79.4	77.3
Chemicals and allied products.....	-1.4	-1.0			
Stone, clay, and glass products.....	-4.4	-5.2			
Metal products, other than iron and steel.....	+1.1	-4			
			All industries.....	78.8	77.2

PER CENT OF CHANGE IN EMPLOYMENT AND PAY ROLLS IN SPECIFIED STATES—
Continued

Monthly period—Continued

State, and industry group	Per cent of change, May to June, 1929		State, and industry group	Per cent of change, May to June, 1929	
	Employment	Pay roll		Employment	Pay roll
Wisconsin			Wisconsin—Continued		
<i>Manual</i>			<i>Manual—Continued</i>		
Logging.....	-2.7	-3.7	Construction:		
Mining.....	+7.9	+8.3	Building.....	0.0	-6.9
Stone crushing and quarrying.....	+14.7	+13.4	Highway.....	+17.1	+21.3
Manufacturing:			Railroad.....	+13.9	+22.1
Stone and allied industries.....	+10.5	-1.2	Marine dredging, sewer digging.....	+71.3	+67.7
Metal.....	-3.5	-7.1	Communication:		
Wood.....	-3	-1.7	Steam railways.....	-48.9	-32.9
Rubber.....	-2.3	+1.1	Electric railways.....	+1.4	+11.1
Leather.....	-2	-2.8	Express, telephone, and telegraph.....	+3.2	-3.5
Paper.....	+9	+3.0	Wholesale trade.....	-2.8	-4.1
Textiles.....	+1.1	-2.4	Hotels and restaurants ¹	+5.7	
Foods.....	+7.7	+7.8			
Light and power.....	+2.1	+1.2	<i>Nonmanual</i>		
Printing and publishing.....	+4	-1.1	Manufacturing, mines, and quarries.....	-6	-4
Laundering, cleaning, and dyeing.....	+5	+6	Construction.....	-5	+1
Chemicals (including soap, glue, and explosives).....	-7.1	-5	Communication.....	+1.9	+2.6
All manufacturing.....	-6	-2.9	Wholesale trade.....	+1.2	-5
			Retail trade—sales force only.....	+6.9	+2.1
			Miscellaneous professional services.....	-4	+2

Yearly period

State, and industry group	Per cent of change, June, 1928, to June, 1929		State, and industry group	Employment—index numbers (1925=1927=100)	
	Employment	Pay roll		June, 1928	June, 1929
California			Illinois		
Stone, clay, and glass products.....	-1.1	+0.3	Stone, clay, and glass products.....	99.9	95.6
Metals, machinery, and conveyances.....	+17.8	+19.3	Metals, machinery, and conveyances.....	97.4	115.5
Wood manufactures.....	-2.6	-4.6	Wood products.....	77.8	73.2
Leather and rubber goods.....	+27.7	+31.7	Furs and leather goods.....	97.3	103.2
Chemicals, oils, paints, etc.....	+25.9	+34.3	Chemicals, oils, paints, etc.....	99.4	106.2
Printing and paper goods.....	+3.8	+3.9	Printing and paper goods.....	98.2	98.8
Textiles.....	-2.6	-1.3	Textiles.....	94.4	93.5
Clothing, millinery, and laundering.....	+6	+9	Clothing and millinery.....	92.6	89.5
Foods, beverages, and tobacco.....	-8.6	-3.6	Foods, beverages, and tobacco.....	96.3	92.9
Water, light, and power.....	-2.1	+1.5			
Miscellaneous.....	+27.4	+19.3	All manufacturing.....	95.8	104.1
All industries.....	+6.0	+9.7	Trade, wholesale and retail.....	90.6	84.0
			Public utilities.....	102.4	107.2

¹ Manual and nonmanual combined.

PER CENT OF CHANGE IN EMPLOYMENT AND PAY ROLLS IN SPECIFIED STATES—
Continued

Yearly period—Continued

State, and industry group	Employment—index numbers (1925-1927=100)		State, and industry group	Per cent of change, July, 1928, to July, 1929	
	June, 1928	June, 1929		Employ- ment	Pay roll
Illinois—Continued			Oklahoma		
Coal mining.....	45.4	64.5	Cottonseed-oil mills.....	+190.4	+128.
Building and contracting.....	98.5	86.3	Food production:		
All industries.....	95.2	101.6	Bakeries.....	-30.0	-9.9
	(1919-1923=100)		Confections.....	+6.2	+35.0
Massachusetts			Creameries and dairies.....	+2.1	+36.0
Boots and shoes.....	56.6	57.9	Flour mills.....	+7.8	+7.8
Bread and other bakery products.....	105.8	110.6	Ice and ice cream.....	+70.8	+16.2
Cars and general shop construction and repairs, steam railroads.....	70.2	69.7	Meat and poultry.....	-4.0	-6.3
Clothing, men's and women's	84.0	93.3	Lead and zinc:		
Confectionery.....	77.4	76.4	Mines and mills.....	+62.9	+85.3
Cotton goods.....	43.9	58.5	Smelters.....	+3.6	+7.3
Dyeing and finishing.....	97.6	105.0	Metals and machinery:		
Electrical machinery, apparatus, and supplies.....	102.4	104.9	Auto repairs, etc.....	+65.0	+51.2
Foundry and machine-shop products.....	65.0	71.8	Machine shops and foundries.....	+15.7	+41.0
Furniture.....	98.2	103.1	Tank construction and erection.....	-26.3	-12.9
Hosiery and knit goods.....	76.6	68.6	Oil industry:		
Jewelry.....	99.4	99.3	Producing and gasoline manufacture.....	+55.1	+58.6
Leather, tanned, curried, and finished.....	81.3	80.3	Refineries.....	+8.0	+4.0
Paper and wood pulp.....	91.6	94.0	Printing: Job work.....	+5.0	+10.7
Printing and publishing.....	106.0	109.6	Public utilities:		
Rubber footwear.....	82.5	88.5	Steam-railway shops.....	-43.8	-30.1
Rubber goods, tires, and tubes.....	85.9	79.1	Street railways.....	+10.3	+28.4
Silk goods.....	105.7	95.7	Water, light, and power.....	+84.9	+82.5
Textile machinery and parts.....	51.1	58.8	Stone, clay, and glass:		
Woolen and worsted goods.....	81.3	77.3	Brick and tile.....	-25.9	-38.5
All industries.....	73.6	77.2	Cement and plaster.....	-20.2	-22.4
	Per cent of change, June, 1928, to June, 1929		Crushed stone.....	+402.7	+220.9
	Employ- ment	Pay roll	Glass manufacture.....	-17.0	-28.1
New York			Textiles and cleaning:		
Stone, clay, and glass.....	+2.4	+4.5	Textile manufacture.....	-10.7	-4.3
Metals and machinery.....	+14.1	+16.4	Laundries, etc.....	-28.8	-22.6
Wood manufactures.....	-2.3	-1.8	Woodworking:		
Furs, leather, and rubber goods.....	+2.4	-6	Sawmills.....	-8.1	-9.2
Chemicals, oils, paints, etc.....	+4.2	+5.6	Millwork, etc.....	-15.0	-10.0
Paper.....	+3.4	+4.6	All industries.....	+18.9	+21.6
Printing and paper goods.....	+3.0	+6.4		Index numbers (1923-1925=100)— employment	
Textiles.....	+1.6	+5.3		July, 1928	July, 1929
Clothing and millinery.....	+4.1	+4.2	Pennsylvania		
Food and tobacco.....	+1.3	+1.2	Metal products.....	81.9	96.3
Water, light, and power.....	-5.6	-4.7	Transportation equipment.....	73.5	82.4
All industries.....	+6.5	+8.4	Textile products.....	91.4	97.1
			Foods and tobacco.....	96.5	96.4
			Stone, clay, and glass products.....	86.8	83.7
			Lumber products.....	77.6	81.3
			Chemical products.....	92.1	110.4
			Leather and rubber products.....	97.1	97.8
			Paper and printing.....	91.0	94.8
			All industries.....	84.5	95.0

PER CENT OF CHANGE IN EMPLOYMENT AND PAY ROLLS IN SPECIFIED STATES—
Continued

Yearly period—Continued

State, and industry group	Index numbers (1923-1925=100)— pay roll		State, and industry group	Per cent of change, June, 1928, to June, 1929	
	July, 1928	July, 1929		Employ- ment	Pay roll
Pennsylvania—Continued			Wisconsin—Continued		
Metal products.....	74.7	98.9	Manual—Continued		
Transportation equipment.....	71.5	81.2	Manufacturing—Continued.		
Textile products.....	90.4	99.9	Light and power.....	+5.1	+4.2
Foods and tobacco.....	97.0	97.6	Printing and publishing.....	+11.8	+8.9
Stone, clay, and glass prod- ucts.....	80.1	80.2	Laundering, cleaning, and dyeing.....	+1.2	+2
Lumber products.....	76.1	78.2	Chemicals (including soap, glue, and explo- sives).....	-19.3	-21.2
Chemical products.....	99.3	114.7	All manufacturing.....	+6.0	+2.1
Leather and rubber products.....	100.2	100.4	Construction:		
Paper and printing.....	101.3	103.1	Building.....	-1.2	+8.6
All industries.....	80.8	96.4	Highway.....	+1.3	+4.0
			Railroad.....	-15.0	-11.3
			Marine dredging, sewer digging.....	+144.3	+122.0
			Communication:		
			Steam railways.....	+3.4	+6.4
			Electric railways.....	-6.7	-2.2
			Express, telephone, and telegraph.....	+12.7	+12.5
			Wholesale trade.....	+11.6	+2.1
			Hotels and restaurants ¹	-2.1	
			Nonmanual		
			Manufacturing, mines, and quarries.....	+4.5	+8.2
			Construction.....	-4.6	-9
			Communication.....	+12.4	+9.9
			Wholesale trade.....	+3	+1.7
			Retail trade—sales force only.....	+21.0	+19.4
			Miscellaneous professional services.....	+1.9	+10.7
Wisconsin					
Manual					
Logging.....	+31.0	-3.6			
Mining.....	+5.3	+7.6			
Stone crushing and quarry- ing.....	-5.7	+7			
Manufacturing:					
Stone and allied indus- tries.....	-9.8	-11.3			
Metal.....	+6.1	+9			
Wood.....	+4.5	-5.0			
Rubber.....	+11.7	+4.8			
Leather.....	+13.3	+13.3			
Paper.....	+5.1	+5.8			
Textiles.....	+2	+2.4			
Foods.....	+8.9	+9.9			

¹ Manual and nonmanual combined.

WHOLESALE AND RETAIL PRICES

Retail Prices of Food in the United States

THE following tables are compiled from monthly reports of actual selling prices¹ received by the Bureau of Labor Statistics from retail dealers.

Table 1 shows for the United States retail prices of food July 15, 1928, June 15 and July 15, 1929, as well as the percentage changes in the year and in the month. For example, the retail price per pound of pork chops was 37.3 cents on July 15, 1928; 37.6 cents on June 15, 1929; and 39.5 cents on July 15, 1929. These figures show increases of 6 per cent in the year and 5 per cent in the month.

The cost of various articles of food combined shows an increase of 3.7 per cent July 15, 1929, as compared with July 15, 1928, and an increase of 2.4 per cent July 15, 1929, as compared with June 15, 1929.

TABLE 1.—AVERAGE RETAIL PRICES OF SPECIFIED FOOD ARTICLES AND PER CENT OF INCREASE OR DECREASE JULY 15, 1929, COMPARED WITH JUNE 15, 1929, AND JULY 15, 1928

[Percentage changes of five-tenths of 1 per cent and over are given in whole numbers]

Article	Unit	Average retail prices on—			Per cent of increase (+) or decrease (—) July 15, 1929, compared with—	
		July 15, 1928	June 15, 1929	July 15, 1929	July 15, 1928	June 15, 1929
		Cents	Cents	Cents		
Sirloin steak.....	Pound.....	49.7	51.2	53.8	+8	+5
Round steak.....	do.....	43.9	45.8	47.0	+7	+3
Rib roast.....	do.....	36.0	37.6	38.2	+6	+2
Chuck roast.....	do.....	28.9	30.7	31.3	+8	+2
Plate beef.....	do.....	19.1	21.3	21.5	+13	+1
Pork chops.....	do.....	37.3	37.6	39.5	+6	+5
Bacon, sliced.....	do.....	43.9	43.8	44.3	+1	+1
Ham, sliced.....	do.....	53.4	55.3	55.1	+3	-0.4
Lamb.....	do.....	41.1	41.2	41.1	0	-0.2
Hens.....	do.....	36.7	41.3	39.9	+9	-3
Salmon, canned, red.....	do.....	35.3	31.4	31.6	-10	+1
Milk, fresh.....	Quart.....	14.1	14.2	14.2	+1	0
Milk, evaporated.....	15-oz. can.....	11.1	10.9	10.9	-2	0
Butter.....	Pound.....	54.3	53.8	53.4	-2	-1
Oleomargarine (all butter substitutes).....	do.....	27.2	27.2	27.2	0	0
Cheese.....	do.....	38.3	38.0	37.9	-1	-0.3
Lard.....	do.....	18.4	18.3	18.4	0	+1
Vegetable lard substitute.....	do.....	24.9	24.8	24.8	-0.4	0
Eggs, strictly fresh.....	Dozen.....	41.6	41.4	44.2	+6	+7
Bread.....	Pound.....	9.2	9.0	9.0	-2	0

¹ In addition to monthly retail prices of food and coal, the bureau publishes the prices of gas and electricity from each of 51 cities for the dates for which these data are secured.

TABLE 1.—AVERAGE RETAIL PRICES OF SPECIFIED FOOD ARTICLES AND PER CENT OF INCREASE OR DECREASE JULY 15, 1929, COMPARED WITH JUNE 15, 1929, AND JULY 15, 1928—Continued.

Article	Unit	Average retail prices on—			Per cent of increase (+) or decrease (—) July 15, 1929, compared with—	
		July 15, 1928	June 15, 1929	July 15, 1929	July 15, 1928	June 15, 1929
		<i>Cents</i>	<i>Cents</i>	<i>Cents</i>		
Flour.....	Pound.....	5.6	4.9	5.0	-11	+2
Corn meal.....	do.....	5.3	5.3	5.3	0	0
Rolled oats.....	do.....	8.9	8.9	8.8	-1	-1
Corn flakes.....	8-oz. package.....	9.5	9.5	9.6	+1	+1
Wheat cereal.....	28-oz. package.....	25.6	25.4	25.5	-0.4	+0.4
Macaroni.....	Pound.....	19.8	19.7	19.6	-1	-1
Rice.....	do.....	10.0	9.7	9.7	-3	0
Beans, navy.....	do.....	12.5	14.2	14.3	+14	+1
Potatoes.....	do.....	2.3	3.1	3.9	+70	+26
Onions.....	do.....	5.9	7.0	7.0	+19	0
Cabbage.....	do.....	4.3	4.8	4.8	+12	0
Beans, baked.....	No. 2 can.....	11.5	11.9	11.8	+3	-1
Corn, canned.....	do.....	15.9	15.8	15.8	-1	0
Peas, canned.....	do.....	16.8	16.6	16.6	-1	0
Tomatoes, canned.....	do.....	11.6	13.4	13.8	+19	+3
Sugar.....	Pound.....	7.3	6.4	6.4	-12	0
Tea.....	do.....	77.4	77.5	77.4	0	-0.1
Coffee.....	do.....	49.2	49.4	49.4	+0.4	0
Prunes.....	do.....	13.8	14.6	14.7	+7	+1
Raisins.....	do.....	13.6	11.6	11.7	-14	+1
Bananas.....	Dozen.....	32.1	31.7	32.1	0	+1
Oranges.....	do.....	62.6	44.0	44.8	-28	+2
Weighted food index.....	+3.7	+2.4

Table 2 shows for the United States average retail prices of specified food articles on July 15, 1913, and on July 15 of each year from 1923 to 1929, together with percentage changes in July of each of these specified years, compared with July, 1913. For example, the retail price per pound of sirloin steak was 26.4 cents in July, 1913; 41 cents in July, 1923; 40.7 cents in July, 1924; 42.2 cents in July, 1925; 42 cents in July, 1926; 43.6 cents in July, 1927; 49.7 cents in July, 1928; and 53.8 cents in July, 1929.

As compared with July, 1913, these figures show increases of 55 per cent in July, 1923; 54 per cent in July, 1924; 60 per cent in July, 1925; 59 per cent in July, 1926; 65 per cent in July, 1927; 88 per cent in July, 1928; and 104 per cent in July, 1929.

The cost of the various articles of food combined showed an increase of 59.1 per cent in July, 1929, as compared with July, 1913.

TABLE 2.—AVERAGE RETAIL PRICES OF SPECIFIED FOOD ARTICLES AND PER CENT OF INCREASE JULY 15 OF CERTAIN SPECIFIED YEARS COMPARED WITH JULY 15, 1913

(Percentage changes of five-tenths of 1 per cent and over are given in whole numbers)

Article	Average retail price on July 15—								Per cent of increase July 15 of each specified year compared with July 15, 1913							
	1913	1923	1924	1925	1926	1927	1928	1929	1923	1924	1925	1926	1927	1928	1929	
Sirloin steak.....pound	Cts. 26.4	Cts. 41.0	Cts. 40.7	Cts. 42.2	Cts. 42.0	Cts. 43.6	Cts. 49.7	Cts. 53.8	55	54	60	59	65	88	104	
Round steak.....do	23.2	35.5	34.6	36.5	36.3	37.9	43.9	47.0	53	49	57	56	63	89	103	
Rib roast.....do	20.2	29.3	29.1	30.4	30.7	31.7	36.0	38.2	45	44	50	52	57	78	89	
Chuck roast.....do	16.4	20.8	21.0	22.4	22.7	23.9	28.9	31.3	27	28	37	38	46	76	91	
Plate beef.....do	12.2	12.8	13.1	14.0	14.5	15.3	19.1	21.5	5	7	15	19	25	57	76	
Pork chops.....do	21.7	31.2	30.3	39.2	41.7	34.9	37.3	39.5	44	40	81	92	61	72	82	
Bacon, sliced.....do	28.0	39.1	36.4	48.7	52.3	46.6	43.9	44.3	40	30	74	87	66	57	58	
Ham, sliced.....do	28.1	46.0	44.7	54.4	60.9	54.6	53.4	55.1	64	59	94	117	94	90	96	
Lamb, leg of.....do	19.7	38.5	38.4	39.3	40.3	40.3	41.1	41.1	95	95	99	105	105	109	109	
Hens.....do	21.7	34.8	35.3	36.6	39.2	35.6	36.7	39.9	60	63	69	81	64	69	84	
Salmon, canned, red pound		31.1	31.2	31.5	38.1	32.3	35.3	31.6								
Milk, fresh.....quart	8.8	13.6	13.5	13.8	13.8	14.0	14.1	14.2	55	53	57	57	59	60	61	
Milk, evaporated 16-ounce can		12.2	11.2	11.4	11.4	11.5	11.1	10.9								
Butter.....pound	34.8	49.1	49.5	53.2	50.1	51.4	54.3	53.4	41	42	53	44	48	56	53	
Oleomargarine (all butter substitutes) pound		28.2	29.2	29.9	30.2	28.0	27.2	27.2								
Cheese.....do	21.9	36.2	34.4	36.6	35.6	36.9	38.3	37.9	65	57	67	63	68	75	73	
Lard.....do	15.9	17.1	17.1	23.5	22.9	18.8	18.4	18.4	8	8	48	44	18	16	16	
Vegetable lard substitute pound		22.8	24.7	25.8	25.9	25.0	24.9	24.8								
Eggs, strictly fresh dozen	29.9	37.1	39.4	46.2	42.1	36.9	41.6	44.2	24	32	55	41	23	39	48	
Bread.....pound	5.6	8.8	8.7	9.4	9.4	9.3	9.2	9.0	57	55	68	68	66	64	61	
Flour.....do	3.3	4.7	4.8	6.1	6.0	5.5	5.6	5.0	42	45	85	82	67	70	52	
Corn meal.....do	3.0	4.1	4.5	5.4	5.1	5.2	5.3	5.3	37	50	80	70	73	77	77	
Rollod oats.....do		8.8	8.8	9.2	9.1	9.0	8.9	8.8								
Corn flakes 8-ounce package		9.7	9.6	11.1	10.9	9.8	9.5	9.6								
Wheat cereal 28-ounce package		24.4	24.3	24.6	25.4	25.4	25.6	25.5								
Macaroni.....pound	19.8	19.6	20.5	20.2	20.0	19.8	19.6									
Rice.....do	8.7	9.4	10.0	11.2	11.7	10.7	10.0	9.7	8	15	29	34	23	15	11	
Beans, navy.....do		11.3	9.7	10.3	9.2	9.4	12.5	14.3								
Potatoes.....do	1.9	4.2	3.3	4.4	4.1	4.2	2.3	3.9	121	74	132	116	121	21	105	
Onions.....do		7.4	6.9	9.5	6.8	7.8	5.9	7.0								
Cabbage.....do		5.4	5.0	6.5	5.1	5.5	4.3	4.8								
Beans, baked No. 2 can		12.9	12.6	12.4	11.9	11.5	11.5	11.8								
Corn, canned.....do		15.4	15.8	18.3	16.4	15.5	15.9	15.8								
Peas, canned.....do		17.6	18.1	18.4	17.4	16.7	16.8	16.6								
Tomatoes, canned No. 2 can		13.0	13.2	13.7	11.8	12.0	11.6	13.8								
Sugar, granulated pound	5.5	10.5	8.4	7.1	6.9	7.4	7.3	6.4	91	53	29	25	35	33	16	
Tea.....do	54.4	69.4	70.8	75.8	77.0	77.5	77.4	77.4	28	30	39	42	42	42	42	
Coffee.....do	29.8	37.7	42.4	50.8	51.1	47.6	49.2	49.4	27	42	70	71	60	65	66	
Prunes.....do		19.2	17.4	17.3	17.2	15.7	13.8	14.7								
Raisins.....do		17.5	15.4	14.5	14.8	14.4	13.6	11.7								
Bananas.....dozen		38.8	35.9	36.2	35.2	33.4	32.1	32.1								
Oranges.....do		53.1	45.4	61.2	49.6	50.2	62.6	44.8								
All articles combined ¹									47.8	43.9	60.5	57.7	54.0	53.5	59.1	

¹ Beginning with January, 1921, index numbers showing the trend in the retail cost of food have been composed of the articles shown in Tables 1 and 2, weighted according to the consumption of the average family. From January, 1913, to December, 1920, the index numbers included the following articles: Sirloin steak, round steak, rib roast, chuck roast, plate beef, pork chops, bacon, ham, lard, hens, flour, corn meal, eggs, butter, milk, bread, potatoes, sugar, cheese, rice, coffee, and tea.

Table 3 shows the trend in the retail cost of three important groups of food commodities, viz, cereals, meats, and dairy products, by years, from 1913 to 1928, and by months for 1927, 1928, and 1929. The articles within these groups are as follows:

Cereals: Bread, flour, corn meal, rice, rolled oats, corn flakes, wheat cereal, and macaroni.

Meats: Sirloin steak, round steak, rib roast, chuck roast, plate beef, pork chops, bacon, ham, hens, and leg of lamb.

Dairy products: Butter, cheese, fresh milk, and evaporated milk.

TABLE 3.—INDEX NUMBERS OF RETAIL COST OF CEREALS, MEATS, AND DAIRY PRODUCTS FOR THE UNITED STATES, 1913 TO JULY, 1929

[Average cost in 1913=100.0]

Year and month	Cereals	Meats	Dairy products	Year and month	Cereals	Meats	Dairy products
1913: Average for year.....	100.0	100.0	100.0	1928: Average for year.....	167.2	179.2	150.0
1914: Average for year.....	106.7	103.4	97.1	January.....	168.0	168.3	152.2
1915: Average for year.....	121.6	99.6	96.1	February.....	168.0	167.8	150.7
1916: Average for year.....	126.8	108.2	103.2	March.....	166.8	167.1	150.7
1917: Average for year.....	136.5	137.0	127.6	April.....	167.2	170.3	147.8
1918: Average for year.....	194.3	172.8	153.4	May.....	168.3	175.4	147.3
1919: Average for year.....	198.0	184.2	176.6	June.....	169.8	177.7	146.1
1920: Average for year.....	232.1	185.7	185.1	July.....	169.3	184.4	147.1
1921: Average for year.....	179.8	158.1	149.5	August.....	168.2	189.5	148.3
1922: Average for year.....	159.3	150.3	135.9	September.....	166.7	195.8	151.2
1923: Average for year.....	156.9	149.0	147.6	October.....	165.9	188.9	151.1
1924: Average for year.....	160.4	150.2	142.8	November.....	165.3	184.9	152.5
1925: Average for year.....	176.2	163.0	147.1	December.....	164.2	179.1	153.5
1926: Average for year.....	175.5	171.3	145.5	1929:			
1927: Average for year.....	170.7	169.9	148.7	January.....	164.1	180.9	151.9
January.....	172.8	168.1	151.4	February.....	164.1	180.3	152.6
February.....	172.7	167.6	151.8	March.....	164.1	182.8	152.4
March.....	172.1	168.5	152.2	April.....	164.1	187.5	148.9
April.....	171.7	170.6	150.8	May.....	163.5	191.2	147.5
May.....	171.6	170.7	145.3	June.....	163.0	192.4	146.8
June.....	170.7	168.3	143.7	July.....	163.4	196.1	146.3
July.....	170.6	169.3	143.9				
August.....	171.2	171.0	144.5				
September.....	170.6	173.0	146.6				
October.....	170.5	173.7	149.4				
November.....	169.8	169.9	150.2				
December.....	168.6	168.1	152.8				

Index Numbers of Retail Prices of Food in the United States

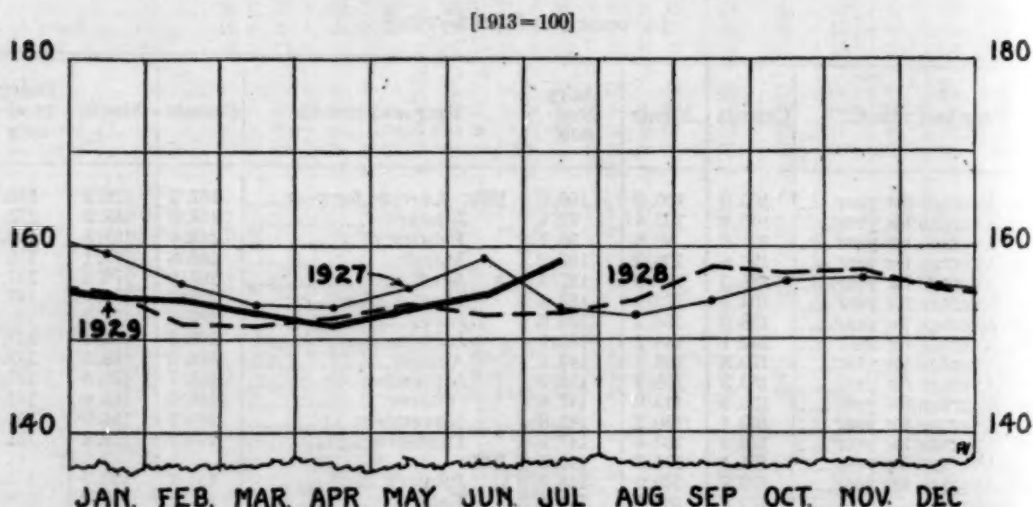
IN TABLE 4 index numbers are given which show the changes in the retail prices of specified food articles, by years, for 1913 and 1920 to 1928,² and by months for 1928 through July, 1929. These index numbers, or relative prices, are based on the year 1913 as 100 and are computed by dividing the average price of each commodity for each month and each year by the average price of that commodity for 1913. These figures must be used with caution. For example, the relative price of sirloin steak for the year 1928 was 188.2, which means that the average money price for the year 1928 was 88.2 per cent higher than the average money price for the year 1913. As compared with the relative price, 167.7 in 1927, the figures for 1928

¹ For index numbers of each month, January, 1913, to December, 1927, see Bulletin No. 306, pp. 44 to 61; Bulletin No. 418, pp. 38 to 51; Bulletin No. 445, pp. 36 to 49, and Bulletin No. 464, pp. 36 to 49.

show an increase of 20½ points, but an increase of 12.2 per cent in the year.

In the last column of Table 4 are given index numbers showing changes in the retail cost of all articles of food combined. Since January, 1921, these index numbers have been computed from the average prices of the articles of food shown in Tables 1 and 2, weighted according to the average family consumption in 1918. (See March, 1921, issue, p. 25.) Although previous to January, 1921, the number of food articles has varied, these index numbers have been so computed as to be strictly comparable for the entire period. The index

TREND OF RETAIL PRICES OF FOOD



numbers based on the average for the year 1913 as 100 are 154.8 for June, 1929, and 158.5 for July, 1929.

The curve shown in the accompanying chart pictures more readily to the eye the changes in the cost of the food budget than do the index numbers given in the table.

TABLE 4.—INDEX NUMBERS OF RETAIL PRICES OF PRINCIPAL ARTICLES OF FOOD BY YEARS, 1913, 1920 TO 1928, AND BY MONTHS FOR JANUARY, 1928, THROUGH JULY, 1929

[Average for year 1913=100.0]

Year and month	Sirloin steak	Round steak	Rib roast	Chuck roast	Plate beef	Pork chops	Bacon	Ham	Hens	Milk	Butter	Cheese
1913.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1920.....	172.1	177.1	167.7	163.8	151.2	201.4	193.7	206.3	209.9	187.6	183.0	188.2
1921.....	152.8	154.3	147.0	132.5	118.2	166.2	158.2	181.4	186.4	164.0	135.0	153.9
1922.....	147.2	144.8	139.4	123.1	105.8	157.1	147.4	181.4	169.0	147.2	125.1	148.9
1923.....	153.9	150.2	143.4	126.3	106.6	144.8	144.8	169.1	164.3	155.1	144.7	167.0
1924.....	155.9	151.6	145.5	130.0	109.1	146.7	139.6	168.4	165.7	155.1	135.0	159.7
1925.....	159.8	155.6	149.5	135.0	114.1	174.3	173.0	195.5	171.8	157.3	143.1	166.1
1926.....	162.6	159.6	153.0	140.6	120.7	188.1	186.3	213.4	182.2	157.3	138.6	165.6
1927.....	167.7	166.4	158.1	148.1	127.3	175.2	174.8	204.5	173.2	158.4	145.2	170.1
1928.....	188.2	188.3	176.8	174.4	157.0	165.7	163.0	196.7	175.6	159.6	147.5	174.2
1928: January..	174.8	173.1	165.2	158.8	142.1	149.0	165.2	192.2	172.8	160.7	150.9	177.4
February.....	176.4	174.4	167.2	160.6	144.6	140.5	161.9	190.3	174.6	160.7	147.0	177.4
March.....	176.8	175.3	167.2	161.3	146.3	136.2	159.3	187.7	174.6	159.6	149.6	174.2
April.....	178.3	177.6	168.7	163.1	147.9	149.0	158.9	188.1	177.0	158.4	143.9	172.9
May.....	181.5	181.2	172.2	166.3	150.4	168.6	159.6	190.3	177.0	158.4	142.6	172.4
June.....	186.6	186.5	175.3	172.5	152.9	165.7	160.0	192.2	174.2	157.3	140.7	172.4
July.....	195.7	196.9	181.8	180.6	157.9	177.6	162.6	198.5	172.3	158.4	141.8	173.3
August.....	200.8	202.2	184.8	185.0	162.0	190.0	165.9	204.5	172.8	158.4	144.7	173.8
September.....	203.9	205.4	188.9	190.0	170.2	211.0	168.1	208.2	177.9	159.6	150.4	175.1
October.....	198.0	200.0	185.9	188.8	171.9	179.0	167.8	206.7	177.9	159.6	150.1	175.6
November.....	190.3	194.6	183.3	185.6	171.9	170.0	164.8	203.0	178.4	160.7	152.2	174.2
December.....	189.8	191.5	180.3	181.9	168.6	149.0	160.4	198.5	177.9	160.7	154.8	174.2
1929: January..	190.6	191.0	180.8	181.3	170.2	153.8	159.3	200.0	184.0	160.7	150.7	173.8
February.....	188.2	188.8	178.8	179.4	167.8	157.1	158.2	199.6	186.4	160.7	152.7	172.9
March.....	188.6	189.2	179.3	180.0	167.8	167.6	158.9	201.9	190.1	160.7	152.5	172.9
April.....	192.9	194.6	183.8	184.4	170.2	176.7	160.4	203.3	196.2	159.6	145.7	172.4
May.....	198.4	201.3	187.9	190.0	174.4	179.5	160.7	204.8	198.1	159.6	142.3	171.9
June.....	201.6	205.4	189.9	191.9	176.0	179.0	162.2	205.6	193.9	159.6	140.5	171.9
July.....	211.8	210.8	192.9	195.6	177.7	188.1	164.1	204.8	187.3	159.6	139.4	171.5

Year and month	Lard	Eggs	Bread	Flour	Corn meal	Rice	Pota- toes	Sugar	Tea	Coffee	All arti- cles ¹
1913.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1920.....	186.7	197.4	205.4	245.5	216.7	200.0	370.6	352.7	134.7	157.7	203.4
1921.....	113.9	147.5	176.8	175.8	150.0	109.2	182.4	145.5	128.1	121.8	153.3
1922.....	107.6	128.7	155.4	154.5	130.0	109.2	164.7	132.7	125.2	121.1	141.6
1923.....	112.0	134.8	155.4	142.4	136.7	109.2	170.6	183.6	127.8	126.5	146.2
1924.....	120.3	138.6	157.1	148.5	156.7	116.1	158.8	167.3	131.4	145.3	145.9
1925.....	147.5	151.0	167.9	184.8	180.0	127.6	211.8	130.9	138.8	172.8	157.4
1926.....	138.6	140.6	167.9	181.8	170.0	133.3	288.2	125.5	141.0	171.1	160.6
1927.....	122.2	131.0	166.1	166.7	173.3	123.0	223.5	132.7	142.5	162.1	155.4
1928.....	117.7	134.5	162.5	163.6	176.7	114.9	158.8	129.1	142.3	165.1	154.3
1928: January..	119.6	162.0	164.3	160.6	173.3	117.2	176.5	129.1	142.3	162.8	155.1
February.....	115.8	124.9	164.3	160.6	173.3	117.2	176.5	129.1	142.1	163.1	151.6
March.....	112.7	107.2	162.5	160.6	173.3	116.1	200.0	129.1	142.3	163.8	151.4
April.....	112.7	103.8	162.5	163.6	176.7	114.9	205.9	129.1	141.9	164.1	152.1
May.....	114.6	108.7	162.5	169.7	176.7	114.9	194.1	130.9	141.9	164.4	153.8
June.....	115.2	112.5	164.3	172.7	176.7	113.8	170.6	132.7	142.1	165.1	152.6
July.....	116.5	120.6	164.3	169.7	176.7	114.9	135.3	132.7	142.3	165.1	152.8
August.....	118.4	130.4	164.3	163.6	176.7	113.8	129.4	129.1	142.3	165.8	154.2
September.....	122.2	146.1	162.5	160.6	176.7	114.9	129.4	127.3	142.3	166.1	157.8
October.....	123.4	157.4	162.5	157.6	176.7	113.8	129.4	125.5	142.5	166.4	156.8
November.....	120.9	171.9	162.5	154.5	176.7	112.6	129.4	123.6	142.3	166.8	157.3
December.....	118.4	169.3	160.7	154.5	176.7	113.8	129.4	121.8	142.1	166.8	155.8
1929: January..	117.1	146.7	160.7	154.5	176.7	112.6	135.3	121.8	142.5	166.1	154.6
February.....	116.5	142.3	160.7	154.5	176.7	112.6	135.3	120.0	142.6	166.1	154.4
March.....	116.5	122.0	160.7	154.5	176.7	112.6	135.3	118.2	142.6	166.4	153.0
April.....	117.1	106.4	160.7	154.5	176.7	112.6	135.3	116.4	142.5	166.4	151.6
May.....	116.5	112.2	160.7	151.5	176.7	111.5	158.8	116.4	142.5	166.1	153.3
June.....	115.8	120.0	160.7	148.5	176.7	111.5	182.4	116.4	142.5	165.8	154.8
July.....	116.5	128.1	160.7	151.5	176.7	111.5	229.4	116.4	142.3	165.8	158.5

¹ 22 articles in 1913-1920; 43 articles in 1921-1929.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN 51 CITIES, JULY 15, 1928, AND JUNE 15 AND JULY 15, 1929

[Exact comparison of prices in different cities can not be made for some articles, particularly meats and vegetables, owing to differences in trade practices]

Article	Atlanta, Ga.			Baltimore, Md.			Birmingham, Ala.			Boston, Mass.			Bridgeport, Conn.		
	1928		1929	1928		1929	1928		1929	1928		1929	1928		1929
	July 15, 1928	June 15		July 15, 1928	June 15		July 15, 1928	June 15		July 15, 1928	June 15		July 15, 1928	June 15	
Sirloin steak.....pound.....	Cts. 46.0	Cts. 50.3	Cts. 51.2	Cts. 48.7	Cts. 50.4	Cts. 53.7	Cts. 49.2	Cts. 51.8	Cts. 52.3	Cts. 173.1	Cts. 175.0	Cts. 175.1	Cts. 58.8	Cts. 58.8	Cts. 61.1
Round steak.....do.....	42.9	45.6	46.6	44.7	47.0	49.8	41.3	44.5	45.7	62.4	61.1	64.6	51.8	53.7	55.2
Rib roast.....do.....	36.5	38.1	38.4	35.5	36.6	38.1	34.5	37.1	37.3	43.2	44.5	45.9	43.3	43.8	44.3
Chuck roast.....do.....	30.0	31.7	31.9	29.5	30.7	31.6	28.7	30.1	30.0	33.4	35.8	36.3	35.2	36.6	37.3
Plate beef.....do.....	19.5	20.8	21.0	19.0	21.2	22.9	18.8	20.6	21.1	21.9	23.5	24.2	16.2	16.9	17.4
Pork chops.....do.....	35.8	34.0	35.5	37.5	37.5	41.0	33.5	34.7	35.7	39.7	40.5	42.5	39.5	40.2	42.5
Bacon, sliced.....do.....	40.8	41.4	40.7	38.9	39.2	41.7	41.8	43.1	43.1	41.3	43.6	43.4	50.5	47.9	48.0
Ham, sliced.....do.....	52.5	56.6	57.3	54.4	56.8	58.4	51.6	53.3	54.0	58.9	59.2	60.2	57.9	58.0	59.8
Lamb, leg of.....do.....	41.5	42.0	41.9	40.2	39.1	40.3	45.4	41.9	41.6	42.9	41.4	42.3	43.7	42.3	43.2
Hens.....do.....	34.4	37.3	36.9	39.7	43.6	42.3	30.7	35.5	34.7	39.8	44.4	42.7	39.9	45.7	42.9
Salmon, canned, red.....pound.....	35.6	34.0	33.6	33.8	28.3	28.1	37.0	32.6	32.6	33.5	30.9	30.9	34.1	30.3	32.2
Milk, fresh.....quart.....	16.5	16.5	16.5	14.0	14.0	14.0	18.7	16.7	16.7	15.3	14.5	15.6	16.0	16.0	16.0
Milk, evaporated.....16-ounce can.....	13.2	13.2	13.2	11.0	10.5	10.4	11.9	11.9	11.9	11.6	11.3	11.3	11.5	10.9	10.8
Butter.....pound.....	56.5	57.2	56.9	58.8	56.9	56.7	56.4	55.6	55.2	56.3	55.6	55.2	55.6	54.8	53.7
Oleomargarine (all butter substitutes).....pound.....	26.0	28.7	28.7	27.6	28.2	28.3	31.4	31.8	31.6	28.3	29.0	29.0	26.3	25.8	25.8
Cheese.....do.....	35.5	36.4	36.4	36.3	35.8	37.0	36.5	37.2	36.7	40.3	40.4	40.1	43.4	43.5	43.5
Lard.....do.....	17.6	17.7	17.9	16.5	16.4	16.7	18.5	18.0	18.3	18.3	18.2	18.1	17.8	17.5	17.3
Vegetable lard substitute.....pound.....	21.8	22.8	23.2	23.3	23.3	23.3	20.0	21.4	21.4	25.1	25.5	25.5	25.5	25.4	25.4
Eggs, strictly fresh.....dozen.....	40.0	39.8	41.0	39.2	40.9	42.9	40.2	38.6	43.0	58.9	55.3	62.1	55.1	51.5	56.9
Bread.....pound.....	10.8	10.6	10.6	9.6	8.5	8.5	9.9	9.9	9.9	8.6	8.7	8.7	8.8	8.7	8.7
Flour.....do.....	6.8	6.4	6.4	5.2	4.6	4.7	6.9	6.3	6.3	6.0	5.3	5.6	5.6	5.0	5.1
Corn meal.....do.....	4.3	4.4	4.4	4.0	4.1	4.1	4.2	4.1	4.1	6.8	6.9	7.0	7.5	7.1	7.1
Rollod oats.....do.....	9.1	9.5	9.5	8.0	8.1	8.1	9.6	9.7	9.5	8.9	8.9	8.8	8.7	8.3	8.5
Corn flakes.....do.....	9.7	9.7	9.7	8.6	8.8	8.9	10.0	9.8	9.8	9.3	9.4	9.3	9.2	9.3	9.3
Wheat cereal.....do.....	26.6	27.1	27.1	24.0	24.4	24.2	27.3	27.1	27.2	25.0	25.2	25.3	24.4	24.4	24.6
Macaroni.....pound.....	21.3	21.5	21.5	18.9	19.0	18.7	18.3	18.3	18.3	21.6	20.9	21.4	22.3	22.2	22.2
Rice.....do.....	9.1	9.6	9.6	8.8	9.0	9.1	9.8	8.7	8.9	11.1	10.5	10.5	10.2	10.0	10.0
Beans, navy.....do.....	13.0	16.4	16.6	12.0	13.7	14.0	12.6	15.1	15.4	12.2	13.4	13.4	11.8	14.3	14.4
Potatoes.....do.....	3.2	3.6	4.4	1.8	3.0	3.6	3.4	4.4	4.3	2.1	2.7	3.9	2.0	3.0	3.8
Onions.....do.....	7.5	8.6	8.7	5.9	7.4	6.9	7.2	7.6	7.9	5.8	7.4	7.9	6.1	7.1	7.5
Cabbage.....do.....	4.1	4.4	4.6	3.5	4.2	4.1	4.6	4.3	4.9	6.0	5.6	5.5	5.4	5.3	5.4
Beans, baked.....do.....	10.7	12.1	12.0	10.8	11.0	11.0	11.5	11.7	11.8	12.6	13.2	13.2	11.6	11.9	11.9
Corn, canned.....do.....	17.5	17.9	17.9	15.5	16.9	16.9	17.3	16.6	16.6	17.5	17.2	17.5	19.2	18.2	17.7
Peas, canned.....do.....	19.2	18.8	19.2	14.8	15.4	15.2	20.0	18.9	18.9	19.7	19.8	19.8	21.5	19.4	18.9
Tomatoes, canned.....do.....	10.2	13.4	13.9	10.1	12.3	12.6	10.0	13.4	13.4	11.9	13.8	13.8	13.5	14.1	14.8
Sugar.....pound.....	7.7	7.0	6.8	6.5	5.4	5.5	7.6	6.6	6.6	7.2	6.3	6.2	7.0	6.3	6.4
Tea.....do.....	105.9	105.3	105.3	72.3	73.2	72.8	99.7	96.2	95.6	72.4	75.7	75.7	61.0	57.2	57.2
Coffee.....do.....	49.0	51.7	51.4	45.1	45.3	45.7	50.6	52.1	52.4	54.3	54.0	54.2	47.5	47.5	47.3
Prunes.....do.....	14.4	15.6	15.7	11.5	12.2	12.5	16.2	16.9	17.3	12.6	14.0	14.3	15.1	15.0	15.2
Raisins.....do.....	15.0	13.5	13.9	12.7	10.6	10.5	14.5	12.4	12.8	12.2	10.7	10.9	13.5	11.9	11.9
Bananas.....dozen.....	27.8	26.7	27.1	23.7	24.0	23.7	38.9	36.3	37.5	44.0	42.5	38.0	33.1	32.5	35.0
Oranges.....do.....	62.7	48.5	46.7	60.5	41.5	40.2	62.7	45.2	46.9	68.0	49.9	50.8	71.8	51.6	51.2

¹ The steak for which prices are here quoted is called "sirloin" in this city, but in most of the other cities included in this report it would be known as "porterhouse" steak.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN 51 CITIES, JULY 15, 1928, AND JUNE 15 AND JULY 15, 1929—Continued

Article	Buffalo, N. Y.			Butte, Mont.			Charleston S. C.			Chicago, Ill.			Cincinnati Ohio		
	July 15, 1928	1929		July 1, 1928	1929		July 15, 1928	1929		July 15, 1928	1929		July 15, 1928	1929	
		June 15	July 15		June 15	July 15		June 15	July 11		June 15	July 15		June 15	July 15
Sirloin steak...pound..	Cts. 48.8	Cts. 51.0	Cts. 53.7	Cts. 35.2	Cts. 40.8	Cts. 39.5	Cts. 38.3	Cts. 40.0	Cts. 39.2	Cts. 53.8	Cts. 54.1	Cts. 55.0	Cts. 46.6	Cts. 48.7	Cts. 50.2
Round steak.....do....	41.9	44.8	45.9	34.1	39.4	38.2	37.0	38.8	38.8	45.1	46.7	48.4	42.8	45.8	47.1
Rib roast.....do.....	35.2	37.0	37.5	31.0	35.0	36.0	31.7	33.3	32.5	40.1	40.8	41.6	36.4	38.6	39.3
Chuck roast.....do.....	29.3	31.6	31.6	24.1	29.2	28.6	25.2	27.9	26.6	32.5	33.4	34.5	27.7	29.4	30.1
Plate beef.....do.....	18.1	20.5	20.3	16.0	19.5	18.8	17.7	21.3	20.8	19.2	20.7	20.6	20.1	23.9	23.6
Pork chops.....do.....	39.3	41.1	43.5	35.5	37.5	36.8	34.3	35.2	35.2	37.3	37.0	39.2	35.1	35.9	37.6
Bacon, sliced.....do....	40.0	40.0	40.9	49.6	50.0	50.0	36.7	36.9	36.9	47.9	48.5	49.7	39.1	39.7	39.7
Ham, sliced.....do.....	51.4	54.6	55.3	54.6	55.8	58.3	46.4	47.1	47.1	53.6	54.3	56.1	52.6	55.3	55.6
Lamb, leg of.....do.....	37.3	38.2	37.6	39.5	43.6	40.2	42.9	46.6	45.0	41.4	42.0	41.6	41.7	43.5	41.5
Hens.....do.....	38.1	42.8	40.5	35.0	37.0	36.2	37.5	43.2	41.1	38.4	43.2	41.8	38.2	43.5	41.3
Salmon, canned, red.....do....	34.6	29.6	29.4	32.7	32.0	32.0	34.8	28.6	28.5	37.2	33.4	33.3	35.6	29.1	29.4
Milk, fresh.....quart..	13.0	14.0	14.0	14.0	14.0	14.0	18.7	19.0	19.0	14.0	14.0	14.0	14.0	14.0	14.0
Milk, evaporated.....do....	10.7	10.7	10.5	10.5	10.6	10.6	11.4	10.7	10.6	10.9	10.7	10.6	10.9	10.8	10.9
Butter.....pound..	53.9	52.9	51.7	51.3	52.5	52.2	51.8	52.4	52.6	52.8	51.0	50.4	55.5	54.7	54.0
Oleomargarine (all butter substitutes).....pound..	27.7	26.1	26.3				28.7	28.4	28.2	26.7	26.6	26.6	27.7	27.7	27.7
Cheese.....do.....	39.2	38.9	38.6	37.7	37.5	37.5	35.6	34.6	34.2	43.2	41.8	41.6	39.4	38.9	38.8
Lard.....do.....	17.0	17.3	17.4	21.3	21.6	21.6	19.0	19.1	18.8	18.6	18.7	18.6	16.8	16.8	17.1
Vegetable lard substitute.....pound..	25.5	24.8	24.8	30.3	30.7	30.7	21.6	21.5	20.9	26.1	25.9	25.8	26.0	25.4	26.1
Eggs, strictly fresh.....dozen..	42.3	42.3	45.9	45.5	45.0	46.8	40.9	40.9	42.4	44.0	43.6	44.8	38.3	38.0	40.7
Bread.....pound..	8.7	8.3	8.3	9.8	9.8	9.8	11.0	11.0	11.0	9.6	9.9	9.9	8.7	8.7	8.7
Flour.....do.....	5.1	4.4	4.7	5.8	4.8	5.1	7.0	6.4	6.4	5.1	4.4	4.5	5.9	5.3	5.5
Corn meal.....do.....	5.1	5.1	5.3	6.3	6.4	6.4	4.0	4.0	4.0	7.0	6.6	6.6	4.7	4.6	4.6
Rolled oats.....do.....	8.8	8.6	8.5	8.1	8.1	8.1	9.5	9.3	9.4	8.5	8.3	8.2	8.9	8.9	8.9
Corn flakes.....do.....	9.0	9.2	9.2	10.3	10.3	10.3	9.8	10.0	10.0	9.3	9.1	9.2	9.3	9.6	9.6
Wheat cereal.....do.....	24.9	24.9	24.9	28.7	28.0	28.0	25.6	25.0	25.3	25.1	24.7	24.8	24.9	24.9	24.9
Macaroni.....pound..	21.3	21.4	21.4	19.7	19.9	19.9	18.4	18.6	18.6	19.0	18.7	18.2	18.1	18.4	18.2
Rice.....do.....	9.8	9.2	9.3	11.1	10.6	10.6	6.7	6.6	6.5	10.6	10.5	10.3	9.7	9.4	9.6
Beans, navy.....do.....	12.3	14.7	14.7	10.9	13.4	13.0	13.2	15.1	11.3	12.6	13.9	14.1	13.2	13.7	13.8
Potatoes.....do.....	1.9	3.0	3.7	2.6	3.0	5.4	1.7	2.6	2.6	2.6	3.3	4.0	2.7	3.8	4.1
Onions.....do.....	6.8	7.4	7.8	6.7	8.3	7.7	6.5	8.2	8.1	6.1	6.8	6.4	5.9	6.6	6.3
Cabbage.....do.....	4.0	5.0	5.4	7.5	6.6	5.9	4.2	3.5	5.7	4.4	5.3	5.2	4.0	5.2	4.1
Beans, baked.....do.....	10.2	10.3	10.3	13.6	13.5	13.5	10.2	11.3	11.3	12.9	12.3	12.5	10.6	11.5	11.6
Corn, canned.....do.....	16.0	16.1	16.1	14.8	14.8	14.8	14.8	15.0	15.2	16.1	15.7	15.8	15.5	15.6	15.7
Peas, canned.....do.....	15.7	15.6	15.8	14.1	14.2	14.2	16.4	16.3	16.7	17.1	16.4	16.4	17.5	16.5	16.6
Tomatoes, canned.....do.....	12.5	13.9	13.9	12.8	12.4	12.4	9.8	11.7	11.8	13.6	14.4	14.4	11.8	14.0	14.3
Sugar.....pound..	6.9	6.1	6.1	8.5	7.5	7.6	6.7	6.1	6.3	7.0	6.2	6.2	7.4	6.5	6.6
Tea.....do.....	68.5	68.3	68.3	83.1	82.6	82.6	82.8	84.0	84.0	69.2	70.0	70.0	79.8	79.3	79.3
Coffee.....do.....	46.8	47.8	47.8	55.2	55.1	55.1	45.2	46.7	46.5	47.8	47.8	47.9	44.9	46.2	45.8
Prunes.....do.....	13.9	14.4	14.4	14.8	14.2	14.8	11.0	12.5	12.4	15.1	16.5	17.1	13.3	14.9	15.4
Raisins.....do.....	12.7	11.1	11.0	14.4	13.2	13.0	12.4	10.0	10.0	14.3	11.2	11.6	14.3	12.0	11.9
Bananas.....dozen..	37.8	38.9	39.0	12.0	13.0	13.5	21.5	25.0	25.0	39.0	37.8	38.4	35.6	36.5	37.2
Oranges.....do.....	61.8	50.6	46.9	61.6	46.6	49.1	60.0	34.8	36.0	64.7	45.4	47.2	60.0	38.9	44.9

¹ Per pound.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN 51 CITIES, JULY 15, 1928, AND JUNE 15 AND JULY 15, 1929—Continued

Article	Cleveland, Ohio			Columbus, Ohio			Dallas, Tex.			Denver, Colo.			Detroit, Mich.		
	July 15, 1928	1929		July 15, 1928	1929		July 15, 1928	1929		July 15, 1928	1929		July 15, 1928	1929	
		June 15	July 15		June 15	July 15		June 15	July 15		June 15	July 15		June 15	July 15
Sirloin steak.....pound	Cts. 52.1	Cts. 50.9	Cts. 52.3	Cts. 47.5	Cts. 50.1	Cts. 60.3	Cts. 43.2	Cts. 47.8	Cts. 48.5	Cts. 43.0	Cts. 44.2	Cts. 46.2	Cts. 51.9	Cts. 52.9	Cts. 54.4
Round steak.....do	45.6	44.8	46.5	42.7	45.6	46.3	40.6	46.3	46.6	39.8	40.4	42.3	43.2	45.4	46.2
Bacon, sliced.....do	35.8	36.2	37.0	36.4	39.8	40.0	33.6	38.3	38.9	32.5	33.0	33.3	37.6	39.8	40.5
Chuck roast.....do	31.9	32.5	33.1	30.5	32.3	33.5	27.5	31.8	31.7	27.0	27.5	28.2	30.4	32.3	33.0
Plate beef.....do	19.9	21.1	21.5	20.8	24.0	24.3	21.8	25.5	24.7	16.1	18.8	18.5	19.5	22.1	22.0
Pork chops.....do	39.0	38.8	41.3	34.4	36.0	36.3	36.1	37.0	37.5	34.2	35.9	36.9	39.5	40.7	43.1
Bacon, sliced.....do	43.7	41.9	41.8	45.3	44.5	44.7	43.4	44.5	43.2	42.0	41.9	42.1	46.1	44.5	44.7
Ham, sliced.....do	56.4	56.0	57.3	50.3	54.1	53.6	56.1	58.0	59.1	53.8	55.5	56.4	57.6	60.6	62.2
Lamb, leg of.....do	40.8	40.6	39.6	46.7	47.8	46.0	45.0	46.3	46.7	38.7	37.4	37.8	44.0	41.8	41.8
Hens.....do	37.4	41.2	40.1	38.8	42.8	40.6	32.7	35.9	34.5	30.3	34.6	33.5	38.3	44.4	41.6
Salmon, canned, red pound	35.4	31.9	32.5	38.0	31.8	32.8	38.1	32.8	32.6	37.7	31.5	32.2	35.3	30.1	31.0
Milk, fresh.....quart	13.3	12.0	13.0	11.0	12.0	12.0	12.3	13.0	13.0	12.0	12.0	12.0	14.0	14.0	14.0
Milk, evaporated 16-ounce can	11.2	11.0	10.9	11.1	11.2	11.0	13.3	13.0	12.9	10.2	10.1	10.1	10.8	10.5	10.6
Butter.....pound	57.2	54.8	53.9	53.2	53.7	52.3	55.9	55.9	55.0	48.5	49.1	47.6	54.3	54.2	53.3
Oleomargarine (all butter substitutes) pound	28.5	29.0	28.7	27.1	27.2	27.2	28.3	28.4	28.3	24.4	24.0	24.3	24.9	25.5	25.4
Cheese.....do	40.1	40.3	39.8	37.1	37.8	36.5	38.5	37.8	38.3	40.3	38.8	39.1	39.7	39.5	39.4
Lard.....do	19.5	20.0	20.0	15.6	15.5	15.5	21.1	20.8	21.1	18.7	18.4	18.5	18.3	18.0	17.8
Vegetable lard substitute pound	26.8	26.4	26.7	27.1	26.7	26.4	23.9	23.6	23.1	21.9	21.2	21.4	26.4	26.2	25.9
Eggs, strictly fresh dozen	45.1	42.8	45.8	34.9	37.1	38.9	36.8	36.3	42.3	36.5	34.9	37.0	43.3	42.6	45.2
Bread.....pound	7.8	7.8	7.8	7.6	7.7	7.7	9.3	9.1	9.1	8.1	7.6	7.6	8.2	8.1	8.1
Flour.....do	5.9	5.0	5.0	5.4	4.7	4.8	5.5	4.9	4.9	4.5	3.7	3.7	5.3	4.7	4.7
Corn meal.....do	6.0	5.7	5.7	4.2	4.2	4.2	4.5	4.4	4.4	4.5	4.5	4.6	6.1	6.1	6.2
Rolled oats.....do	9.4	9.1	8.9	9.1	8.9	8.9	10.0	10.0	10.0	7.6	7.5	7.6	9.2	9.1	9.1
Corn flakes 8-ounce package	9.9	9.8	9.8	9.6	10.0	10.0	10.2	9.8	9.8	9.6	9.9	10.1	9.1	9.7	9.7
Wheat cereal 28-ounce package	25.8	25.7	25.8	26.9	26.1	26.1	27.8	27.3	27.3	24.4	24.6	24.6	25.4	26.6	26.3
Macaroni.....pound	21.1	21.2	20.8	20.8	20.0	20.0	21.8	21.5	21.4	19.4	19.6	19.2	21.7	21.0	20.6
Rice.....do	10.2	10.4	10.2	11.6	11.2	11.2	11.3	11.2	11.4	9.0	8.8	8.9	11.4	11.4	11.4
Beans, navy.....do	12.3	15.0	14.5	14.1	14.1	14.4	13.4	15.9	15.6	12.1	13.0	13.6	13.2	13.7	13.6
Potatoes.....do	2.2	3.8	3.9	2.1	2.2	3.5	4.0	4.8	4.7	2.4	3.2	4.2	1.8	2.9	3.7
Onions.....do	6.3	6.6	6.7	6.7	8.5	8.7	5.5	6.9	7.2	6.0	6.8	6.4	5.2	6.1	6.8
Cabbage.....do	4.8	5.4	5.4	4.5	5.6	4.7	5.4	4.7	5.5	3.9	4.6	4.5	4.1	5.6	6.1
Beans, baked No. 2 can	12.6	12.5	12.0	11.7	11.4	11.4	11.9	13.3	13.3	11.9	11.7	11.6	11.5	11.9	11.6
Corn, canned.....do	17.2	16.9	16.5	14.8	14.3	13.5	18.4	18.0	18.0	14.3	14.4	14.5	15.7	15.5	15.6
Peas, canned.....do	17.6	17.3	17.3	14.8	15.3	15.3	21.5	21.8	21.8	15.3	15.4	15.2	16.3	15.8	16.2
Tomatoes, canned No. 2 can	13.9	14.4	14.5	12.3	13.7	13.8	11.8	14.0	13.8	12.0	12.3	12.6	12.1	13.5	13.8
Sugar.....pound	7.7	7.1	6.9	7.7	6.9	6.9	7.9	7.0	7.0	7.5	7.1	7.1	7.5	6.6	6.7
Tea.....do	81.0	81.9	83.0	86.1	87.8	87.8	104.3	104.3	103.8	70.0	69.6	69.5	75.2	72.6	72.6
Coffee.....do	52.5	52.2	52.2	49.0	49.3	49.3	58.2	57.8	58.8	49.7	49.6	49.5	48.9	48.9	48.9
Prunes.....do	13.8	14.1	14.2	15.3	15.8	16.7	17.9	18.1	18.1	14.9	15.9	16.3	14.0	16.3	16.4
Raisins.....do	13.6	11.7	11.5	13.9	11.2	11.4	15.4	13.0	13.0	13.3	11.2	11.4	13.6	11.6	11.9
Bananas.....dozen	19.4	19.3	19.5	34.0	39.5	37.5	35.0	35.0	41.0	19.3	19.9	10.2	33.0	33.8	34.0
Oranges.....do	66.6	51.0	53.4	62.6	41.8	40.8	61.2	48.8	51.9	58.2	37.6	37.3	64.8	43.9	43.9

¹ Per pound.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN 51 CITIES, JULY 15, 1928, AND JUNE 15 AND JULY 15, 1929—Continued

Article	Fall River, Mass.			Houston, Tex.			Indianapolis, Ind.			Jacksonville, Fla.			Kansas City, Mo.		
	July 15, 1928	1929		July 15, 1928	1929		July 15, 1928	1929		July 15, 1928	1929		July 15, 1928	1929	
		June 15	July 15		June 15	July 15		June 15	July 11		June 15	July 15		June 15	July 15
Sirloin steak.....pound..	Cts. 74.4	Cts. 69.7	Cts. 75.3	Cts. 38.3	Cts. 43.6	Cts. 42.3	Cts. 49.4	Cts. 50.6	Cts. 51.1	Cts. 38.8	Cts. 40.2	Cts. 40.0	Cts. 47.8	Cts. 49.8	Cts. 50.7
Round steak.....do.....	57.2	56.1	58.0	37.5	43.2	42.3	47.8	48.8	49.3	34.5	36.5	36.5	42.7	45.0	46.3
Rib roast.....do.....	40.2	38.8	40.1	30.7	33.2	31.8	35.0	35.9	36.3	29.3	32.2	32.0	33.7	36.2	36.2
Chuck roast.....do.....	31.6	32.2	33.4	24.6	27.0	25.6	30.5	32.5	32.9	22.9	26.3	26.0	26.6	28.3	29.4
Plate beef.....do.....	19.2	17.6	18.8	20.0	24.2	23.5	20.1	21.7	21.7	14.7	16.9	18.0	18.9	20.3	21.1
Pork chops.....do.....	38.1	37.4	40.3	33.5	33.6	35.3	37.8	36.2	38.4	31.5	32.0	33.0	34.9	35.1	37.3
Bacon, sliced.....do.....	42.2	38.3	39.3	41.0	39.0	40.9	43.2	41.2	41.2	38.7	38.3	38.3	43.0	42.2	42.7
Ham, sliced.....do.....	51.5	54.6	56.9	47.3	50.0	51.4	54.6	57.3	57.7	48.0	50.0	50.0	52.5	53.2	53.6
Lamb, leg of.....do.....	43.6	42.5	44.2	34.0	34.2	33.3	42.0	42.5	45.0	40.0	41.3	40.0	36.8	37.9	36.6
Hens.....do.....	44.1	49.7	46.7	30.2	40.5	39.1	40.2	43.6	42.6	32.1	36.9	36.3	32.5	36.3	35.6
Salmon, canned, red.....pound..	36.2	32.4	33.0	34.4	29.5	29.3	32.8	32.0	32.0	34.1	30.0	30.0	37.0	33.4	34.5
Milk, fresh.....quart..	13.7	15.0	15.0	15.0	15.0	15.0	12.0	12.0	12.0	20.3	20.3	20.3	13.0	13.0	13.0
Milk, evaporated.....16-ounce can..	12.4	11.9	11.9	10.6	10.3	10.3	10.4	10.2	10.2	11.2	10.9	10.9	11.1	10.8	10.8
Butter.....pound..	55.6	55.3	55.1	51.6	52.8	52.3	53.9	54.3	53.3	54.8	55.9	55.5	52.3	51.4	49.4
Oleomargarine (all butter substitutes).....pound..	25.9	26.3	26.3	25.2	24.9	24.9	29.2	28.5	28.2	30.1	28.3	28.7	25.1	25.3	25.0
Cheese.....do.....	41.5	40.8	41.3	34.0	32.2	32.2	40.5	40.8	40.8	35.8	34.1	34.1	37.6	37.1	36.5
Lard.....do.....	17.8	17.5	17.5	19.4	20.6	20.8	16.3	16.0	16.3	18.9	19.4	19.3	18.9	18.0	17.7
Vegetable lard substitute.....pound..	27.1	26.7	26.6	15.8	16.5	16.6	26.5	26.9	26.9	21.3	22.4	22.1	26.1	25.6	25.6
Eggs, strictly fresh.....dozen..	53.3	50.6	57.7	35.0	35.5	39.3	35.2	36.7	37.9	40.4	39.0	42.9	36.8	36.9	39.3
Bread.....pound..	8.7	8.5	8.5	8.2	8.4	8.4	7.9	8.0	8.0	10.1	10.0	10.0	9.6	9.2	9.2
Flour.....do.....	5.9	5.4	5.5	5.4	4.7	4.7	5.4	5.1	5.1	6.7	5.9	5.7	5.3	4.5	4.7
Corn meal.....do.....	6.9	6.5	6.5	4.1	3.8	4.2	4.1	4.3	4.3	4.3	4.3	4.3	5.3	5.3	5.3
Rolled oats.....do.....	9.5	9.5	9.4	8.7	8.5	8.2	9.0	8.7	8.7	9.4	9.3	9.4	9.0	8.8	9.1
Corn flakes.....do.....	10.2	9.8	9.8	8.6	9.0	9.1	9.3	9.5	9.5	9.6	9.8	9.8	9.7	9.6	9.6
Wheat cereal.....do.....	25.3	24.7	24.4	25.1	25.3	25.3	25.2	25.3	25.3	24.1	25.2	25.2	26.9	26.8	26.8
Macaroni.....pound..	22.9	23.8	23.8	18.1	18.1	18.1	19.6	18.3	18.3	18.6	19.3	19.1	20.0	19.9	19.6
Rice.....do.....	11.2	10.5	10.7	7.5	7.1	7.2	11.2	10.4	10.4	7.7	7.5	7.6	9.2	9.2	9.7
Beans, navy.....do.....	12.8	13.8	13.6	12.7	14.8	15.4	14.1	14.6	14.5	12.3	14.5	14.8	12.9	14.4	14.6
Potatoes.....do.....	2.2	2.5	4.1	3.5	4.5	4.9	2.6	2.5	4.0	2.9	3.7	4.0	1.5	2.8	3.4
Onions.....do.....	6.3	7.2	7.8	4.7	5.6	5.8	6.9	7.8	7.4	7.9	7.9	8.4	5.9	7.6	7.7
Cabbage.....do.....	4.9	4.9	4.5	4.5	4.8	6.3	4.3	5.0	4.5	5.2	3.8	5.0	2.3	3.8	4.4
Beans, baked.....do.....	12.0	12.6	12.6	10.1	10.9	10.6	9.8	11.1	11.3	10.6	10.6	10.6	12.1	12.4	12.5
No. 2 can.....do.....	17.3	16.0	16.0	13.8	14.1	14.0	14.5	14.0	14.0	17.7	17.0	17.0	14.7	14.7	15.1
Corn, canned.....do.....	19.2	18.1	18.2	14.3	15.7	15.7	15.2	14.7	14.7	18.5	17.7	17.8	15.2	15.5	15.9
Peas, canned.....do.....	12.1	14.0	13.9	9.9	11.7	11.8	11.9	14.2	14.2	9.7	11.4	11.3	11.2	13.9	14.4
Tomatoes, canned.....do.....	7.1	6.3	6.1	7.1	6.4	6.5	7.6	7.0	6.9	7.4	6.3	6.7	7.7	6.9	7.0
No. 2 can.....pound..	58.2	59.1	59.1	83.3	86.8	86.8	85.8	89.8	90.3	98.9	96.6	95.1	93.9	90.7	89.0
Sugar.....do.....	50.4	50.3	50.0	43.2	44.8	44.6	47.7	48.1	48.2	48.1	47.5	48.5	52.4	52.2	52.3
Tea.....do.....	13.4	13.5	13.6	13.3	14.5	14.5	16.5	16.0	16.0	15.6	14.1	14.2	14.3	15.1	15.4
Coffee.....do.....	13.2	12.0	11.6	13.2	10.4	10.5	14.5	13.8	13.8	14.5	11.2	11.7	14.6	12.3	12.7
Prunes.....do.....	9.0	8.8	8.6	25.0	25.0	26.1	31.7	31.9	31.7	28.3	25.7	26.4	10.1	9.5	10.1
Raisins.....do.....	61.9	46.5	42.4	47.9	36.5	34.0	59.7	46.5	47.6	104.0	33.3	46.7	59.6	36.2	39.5
Bananas.....dozen..															
Oranges.....do.....															

¹ Per pound.

² The steak for which prices are here quoted is called "rump" in this city, but in most of the other cities included in this report it would be known as "porterhouse" steak.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN 51 CITIES, JULY 15, 1928, AND JUNE 15 AND JULY 15, 1929—Continued

Article	Little Rock, Ark.			Los Angeles, Calif.			Louisville, Ky.			Manchester, N. H.			Memphis, Tenn.		
	July 15, 1928	1929		July 15, 1928	1929		July 15, 1928	1929		July 15, 1928	1929		July 15, 1928	1929	
		June 15	July 15		June 15	July 15		June 15	July 15		June 15	July 15		June 15	July 15
Sirloin steak.....pound..	Cts. 44.5	Cts. 48.0	Cts. 49.5	Cts. 41.9	Cts. 45.3	Cts. 45.7	Cts. 46.5	Cts. 48.9	Cts. 50.0	Cts. 68.7	Cts. 66.0	Cts. 68.2	Cts. 46.4	Cts. 48.5	Cts. 49.0
Round steak.....do.....	40.2	44.1	45.0	34.2	38.2	38.1	41.5	43.2	45.0	55.3	53.8	55.5	43.2	46.4	45.7
Rib roast.....do.....	34.6	37.8	39.2	33.4	35.4	35.1	33.4	36.4	37.5	35.4	35.6	36.4	32.5	34.4	34.8
Chuck roast.....do.....	27.1	28.9	31.7	23.8	26.6	25.6	26.7	29.1	29.1	30.2	30.6	31.5	27.7	29.8	30.1
Plate beef.....do.....	20.2	23.1	23.6	16.8	18.0	16.6	20.8	23.5	23.6	22.3	23.9	24.7	21.2	21.2	22.6
Pork chops.....do.....	33.4	34.1	34.5	46.3	44.0	44.6	35.8	33.5	36.2	36.5	36.8	38.4	32.6	33.6	35.5
Bacon, sliced.....do.....	44.5	45.4	45.4	51.5	48.8	51.7	44.2	44.8	45.1	38.1	36.9	37.4	37.2	36.0	36.2
Ham, sliced.....do.....	49.5	52.5	54.5	69.0	67.4	69.1	49.2	50.9	52.3	46.0	49.1	49.4	52.1	53.8	55.4
Lamb, leg of.....do.....	40.6	40.0	41.4	37.5	39.4	38.8	36.0	42.7	38.3	41.3	40.2	40.5	37.5	39.7	38.5
Hens.....do.....	29.2	33.5	31.8	42.1	47.3	46.5	35.9	40.3	39.1	42.8	44.4	44.0	29.4	36.2	34.5
Salmon, canned, red															
.....pound..	36.5	30.5	30.5	33.6	29.6	29.6	35.5	29.1	29.8	34.9	29.9	30.1	33.4	35.6	35.6
Milk, fresh.....quart..	14.0	15.0	15.0	15.0	15.0	15.0	12.0	13.0	13.0	15.0	14.7	14.7	15.0	15.0	15.0
Milk, evaporated															
.....16-ounce can..	11.7	11.6	11.6	9.6	9.9	9.9	11.6	11.4	11.5	12.5	12.0	12.0	11.6	11.3	11.1
Butter.....pound..	52.9	54.5	53.9	54.1	54.2	54.3	55.2	53.9	54.0	56.4	54.9	54.4	54.7	54.0	53.4
Oleomargarine (all															
butter substitutes)															
.....pound..	27.2	27.1	26.9	25.3	25.2	25.3	27.0	26.0	25.8	27.4	28.1	27.1	24.4	24.6	25.6
Cheese.....do.....	37.4	36.2	36.5	38.1	38.4	38.4	37.2	37.4	37.3	38.6	38.4	38.2	36.4	34.7	34.5
Lard.....do.....	21.1	19.6	19.5	19.9	19.9	19.5	17.5	17.1	17.3	17.8	17.7	17.7	16.5	15.7	15.7
Vegetable lard substi-															
tute.....pound..	20.5	21.1	20.2	24.1	25.0	24.6	27.8	26.3	26.3	26.2	26.2	26.4	21.1	22.1	22.1
Eggs, strictly fresh															
.....dozen.....	38.1	36.4	38.1	40.9	43.5	46.9	37.9	38.6	39.3	53.0	51.4	56.3	38.0	37.0	39.5
Bread.....pound..	9.3	9.5	9.6	8.9	8.6	8.6	9.2	9.4	9.4	8.7	8.1	8.1	9.5	9.3	9.3
Flour.....do.....	6.3	5.9	5.8	5.4	4.7	4.8	6.7	5.5	5.9	6.0	4.8	5.0	6.4	5.7	5.8
Corn meal.....do.....	4.2	4.1	4.4	5.9	5.7	5.8	4.2	4.1	4.1	5.2	5.3	5.3	3.9	4.0	4.1
Rolled oats.....do.....	10.2	10.3	10.1	10.1	10.0	10.0	8.6	8.5	8.5	8.9	8.4	8.4	8.8	9.0	9.0
Corn flakes															
.....8-ounce pkg..	9.8	9.8	9.8	9.4	9.5	9.4	9.4	9.5	9.5	9.2	9.1	9.0	9.8	9.7	9.7
Wheat cereal															
.....28-ounce pkg..	27.0	27.3	27.3	25.0	25.0	25.0	26.7	26.7	27.2	25.6	25.6	25.6	25.8	25.8	26.0
Macaroni.....pound..	20.1	20.2	20.2	18.0	17.9	17.8	18.6	18.7	18.6	23.2	23.2	23.1	19.5	19.8	19.5
Rice.....do.....	7.9	8.2	8.2	10.2	9.8	9.7	11.1	10.5	10.3	9.2	8.7	8.6	8.4	8.3	8.4
Beans, navy.....do.....	12.2	14.6	14.8	12.3	12.8	13.4	12.8	14.5	14.5	12.9	13.4	13.7	12.5	14.7	15.0
Potatoes.....do.....	2.3	2.9	2.8	1.9	3.5	3.4	2.4	4.0	3.0	1.8	2.3	3.9	2.7	3.9	4.3
Onions.....do.....	4.8	7.6	7.0	4.3	4.8	4.8	5.6	7.0	5.9	6.0	7.8	7.9	4.9	6.3	5.5
Cabbage.....do.....	3.7	3.8	5.3	3.9	3.9	4.0	3.3	4.1	4.4	6.4	5.2	5.5	3.6	4.0	4.9
Beans, baked															
.....No. 2 can..	11.2	12.6	12.3	11.3	11.8	11.7	10.7	11.3	11.1	13.1	13.4	13.7	10.8	11.8	11.9
Corn, canned.....do.....	16.3	15.8	16.0	16.1	15.9	15.9	15.3	14.9	15.0	16.0	16.4	16.4	14.9	14.7	14.7
Peas, canned.....do.....	17.0	18.2	19.1	17.1	16.6	16.9	15.5	15.1	15.1	17.9	17.8	17.6	16.1	16.2	15.7
Tomatoes, canned															
.....No. 2 can..	9.8	13.2	13.7	15.0	15.3	15.6	10.3	13.5	14.1	11.9	14.2	14.3	9.8	12.0	12.7
Sugar.....pound..	7.9	7.0	7.1	7.0	6.1	6.0	7.6	7.0	7.0	7.3	6.5	6.7	7.2	6.5	6.7
Tea.....do.....	103.3	106.7	103.1	75.7	74.6	73.4	89.2	92.0	92.0	65.2	63.6	63.4	99.1	96.0	95.6
Coffee.....do.....	53.4	54.5	53.8	53.8	53.7	53.5	49.3	48.8	48.8	52.1	50.0	50.0	48.9	49.0	48.8
Prunes.....do.....	15.2	16.2	16.1	12.7	14.1	14.4	15.8	14.7	14.7	12.8	13.9	13.8	14.3	14.2	14.5
Raisins.....do.....	15.1	14.0	14.5	12.3	10.4	10.6	14.3	11.6	12.0	13.3	10.8	11.1	14.7	12.4	12.3
Bananas.....dozen..	27.5	28.1	28.6	28.2	28.6	28.6	29.5	29.8	29.9	28.2	28.3	27.9	27.7	27.9	27.8
Oranges.....do.....	57.1	45.5	44.9	60.0	41.5	42.8	53.9	38.4	40.9	63.9	44.5	46.5	56.6	44.3	43.6

¹ The steak for which prices are here quoted is called "sirloin" in this city, but in most of the other cities included in this report it would be known as "porterhouse" steak.

² Per pound.

⁴ No. 2½ can.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN 51 CITIES, JULY 15, 1928, AND JUNE 15 AND JULY 15, 1929—Continued

Article	Milwaukee, Wis.			Minneapolis, Minn.			Mobile, Ala.			Newark, N. J.			New Haven, Conn.		
	July 15, 1928	1929		July 15, 1928	1929		July 15, 1928	1929		July 15, 1928	1929		July 15, 1928	1929	
		June 15	July 15		June 15	July 15		June 15	July 15		June 15	July 15		June 15	July 15
Sirloin steak—pound	Cts. 45.7	Cts. 48.6	Cts. 50.7	Cts. 43.5	Cts. 46.2	Cts. 45.4	Cts. 39.4	Cts. 47.9	Cts. 46.0	Cts. 55.6	Cts. 55.0	Cts. 57.4	Cts. 62.9	Cts. 63.5	Cts. 64.5
Round steak—do	41.5	44.4	45.7	37.8	41.1	41.3	38.9	44.1	44.1	52.2	51.5	54.2	49.6	53.2	55.1
Rib roast—do	33.7	35.1	34.8	33.4	35.9	36.1	32.0	37.3	37.3	42.5	40.9	42.3	40.5	43.1	43.9
Chuck roast—do	29.9	32.5	33.4	28.9	31.6	31.4	26.7	29.4	29.4	32.5	33.2	34.1	31.9	34.8	36.1
Plate beef—do	18.7	21.0	20.9	18.3	19.7	19.7	20.6	23.1	23.8	18.9	19.2	20.0	18.7	18.6	19.6
Pork chops—do	37.3	36.6	39.4	36.8	37.3	39.2	35.0	33.1	36.0	38.5	39.7	41.3	38.4	39.3	40.9
Bacon, sliced—do	44.5	43.6	44.1	45.5	46.8	47.3	40.8	40.0	40.0	44.0	43.6	43.3	44.8	44.8	45.5
Ham, sliced—do	48.4	49.4	50.6	50.5	53.9	54.7	47.9	51.1	51.1	56.3	56.3	58.5	60.5	60.6	61.1
Lamb, leg of—do	41.8	42.9	42.1	37.3	37.2	37.7	39.2	43.0	43.0	42.5	41.6	42.9	43.5	42.6	45.0
Hens—do	32.3	38.6	37.4	32.6	38.1	35.6	32.4	36.6	35.0	38.3	43.5	40.9	42.5	46.6	44.4
Salmon, canned, red															
pound	33.4	36.4	33.8	37.4	35.5	35.3	35.3	29.0	29.1	33.5	29.1	28.8	34.8	31.7	31.5
Milk, fresh—quart	11.0	11.0	11.0	12.0	12.0	12.0	18.0	18.0	18.0	16.0	16.0	16.0	16.0	16.0	16.0
Milk, evaporated															
16-ounce can	10.8	10.8	10.8	11.5	11.7	11.5	11.1	10.6	10.6	10.8	10.5	10.5	11.7	11.6	11.6
Butter—pound	51.7	50.5	49.9	50.8	51.0	49.7	54.4	55.6	54.9	55.9	54.9	54.7	54.6	54.8	54.9
Oleomargarine (all butter substitutes)															
pound	26.2	26.6	26.9	25.6	25.4	25.5	29.9	28.2	28.6	29.1	30.2	30.2	29.6	29.0	29.0
Cheese—do	37.0	37.1	36.9	37.2	37.1	37.4	37.0	35.0	35.0	39.8	41.8	41.8	41.4	41.6	41.8
Lard—do	18.3	18.5	18.3	18.3	19.1	19.1	18.3	18.3	18.3	18.1	18.6	18.6	18.6	18.9	18.9
Vegetable lard substitute—pound	26.5	26.7	26.8	27.3	26.8	26.6	20.5	19.3	19.4	25.5	25.3	25.5	26.1	25.4	25.4
Eggs, strictly fresh															
dozen	36.3	38.5	38.3	35.8	36.0	36.8	35.8	36.3	38.8	49.3	48.9	50.8	56.8	53.7	58.5
Bread—pound	8.8	8.7	8.7	8.9	9.0	9.0	10.1	10.1	10.1	9.1	8.8	8.8	9.1	8.8	8.8
Flour—do	5.0	4.3	4.4	5.3	4.4	4.7	6.4	5.7	5.7	5.5	4.9	5.0	5.7	4.9	5.0
Corn meal—do	5.7	6.2	6.3	5.3	5.5	5.4	4.1	3.8	3.9	6.9	6.7	6.7	6.5	6.8	6.9
Rolled oats—do	8.4	8.1	8.1	8.0	7.9	7.9	8.3	8.0	8.3	8.4	8.7	8.6	9.2	9.4	9.2
Corn flakes															
8-ounce package	9.2	9.4	9.4	9.7	9.6	9.7	9.3	9.1	9.0	8.8	8.9	8.9	9.8	9.9	9.9
Wheat cereal															
28-ounce package	24.6	24.7	24.7	25.3	25.4	25.5	24.4	24.2	24.2	24.8	26.2	26.5	25.4	24.4	24.4
Macaroni—pound	17.5	17.8	17.6	18.4	17.5	17.5	21.3	20.9	21.1	21.4	21.5	21.5	21.9	22.4	22.0
Rice—do	10.0	10.0	10.0	9.5	10.0	10.1	8.7	7.6	7.7	9.8	9.4	9.3	10.1	10.2	10.2
Beans, navy—do	13.1	14.3	14.0	13.5	14.6	14.6	11.6	14.8	14.5	12.0	14.9	14.5	11.5	14.2	14.3
Potatoes—do	2.1	1.8	4.2	1.5	1.9	3.0	2.6	3.1	3.9	2.4	3.4	4.0	2.2	2.6	3.7
Onions—do	5.6	7.2	7.0	6.4	8.0	8.1	4.7	5.6	5.9	6.1	7.3	7.6	6.7	7.9	7.8
Cabbage—do	4.5	5.2	5.7	2.4	5.0	3.8	4.2	4.4	4.8	5.0	4.8	4.8	5.8	5.9	5.3
Beans, baked															
No. 2 can	11.4	11.6	11.4	12.3	12.4	12.0	10.1	10.8	10.8	10.6	10.8	10.8	11.7	12.3	12.3
Corn, canned—do	15.9	16.0	16.3	15.0	15.0	15.1	15.6	14.4	14.3	17.3	16.4	16.4	18.1	18.5	18.3
Peas, canned—do	16.0	16.2	15.9	15.1	15.5	15.3	15.7	15.1	15.1	17.2	17.0	17.1	20.5	21.3	20.7
Tomatoes, canned															
No. 2 can	13.1	14.4	14.6	13.3	14.1	14.3	9.9	11.8	12.2	10.5	12.3	12.4	13.0	14.5	14.8
Sugar—pound	7.1	6.1	6.2	7.5	6.5	6.3	7.1	6.2	6.1	6.8	6.1	6.1	7.0	6.4	6.4
Tea—do	68.4	69.0	69.0	62.1	68.0	68.1	78.1	79.2	80.1	59.1	57.3	57.3	59.9	59.9	59.9
Coffee—do	45.0	46.3	46.5	53.2	53.4	52.8	48.3	50.2	50.1	49.4	48.3	48.3	51.9	51.5	51.6
Prunes—do	13.9	15.0	15.1	14.0	14.9	14.8	14.9	13.3	12.9	12.9	14.0	14.0	13.5	14.8	14.8
Raisins—do	14.1	12.1	12.8	14.3	11.9	11.9	13.4	9.6	9.6	13.4	11.3	11.3	13.5	12.5	12.4
Bananas—dozen	8.8	8.9	9.2	9.7	9.5	9.9	25.0	21.7	20.8	37.0	37.5	37.5	34.2	33.1	33.5
Oranges—do	63.1	42.9	43.1	50.1	40.8	38.1	56.3	38.9	34.9	68.0	48.9	51.2	71.5	49.6	53.0

* Per pound.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN 51 CITIES, JULY 15, 1928, AND JUNE 15 AND JULY 15, 1929—Continued

Article	New Orleans, La.			New York, N. Y.			Norfolk, Va.			Omaha, Nebr.			Peoria, Ill.		
	1929			1929			1929			1929			1929		
	July 15, 1928	June 15	July 15	July 15, 1928	June 15	July 15	July 15, 1928	June 15	July 15	July 15, 1928	June 15	July 15	July 15, 1928	June 15	July 15
Sirloin steak.....pound..	Cts. 42.6	Cts. 46.2	Cts. 46.8	Cts. 53.5	Cts. 53.6	Cts. 56.7	Cts. 46.9	Cts. 47.9	Cts. 50.0	Cts. 47.1	Cts. 47.3	Cts. 48.8	Cts. 43.5	Cts. 43.6	Cts. 44.1
Round steak.....do.....	38.3	41.3	41.9	50.6	51.9	55.0	41.8	41.8	43.6	45.5	45.6	46.8	42.3	43.6	43.9
Rib roast.....do.....	35.0	37.6	39.4	44.5	44.1	44.8	37.5	39.4	40.0	32.1	33.3	34.0	33.2	32.1	32.2
Chuck roast.....do.....	25.5	27.0	27.5	30.0	31.2	32.6	27.8	30.0	30.0	29.6	30.6	31.3	28.6	29.7	29.1
Plate beef.....do.....	19.7	22.2	22.9	23.8	25.1	26.0	18.4	21.9	22.6	16.5	19.8	19.9	19.3	20.0	20.2
Pork chops.....do.....	36.5	37.0	38.9	40.5	40.5	42.9	34.0	34.8	36.9	34.4	35.2	36.5	33.5	33.8	34.8
Bacon, sliced.....do.....	41.9	42.7	44.1	46.7	45.5	46.5	41.9	41.7	42.4	46.1	44.6	45.5	44.6	42.7	43.6
Ham, sliced.....do.....	49.0	51.3	53.3	57.8	59.0	60.8	46.0	45.9	45.9	51.6	53.8	54.4	50.4	50.5	50.5
Lamb, leg of.....do.....	39.8	39.6	40.1	40.2	40.3	41.4	46.7	42.8	44.2	40.6	39.1	38.8	39.9	46.0	45.0
Hens.....do.....	34.4	39.8	39.5	39.4	44.2	41.6	36.2	39.1	38.9	31.9	36.1	34.2	32.7	37.4	37.6
Salmon, canned, red.....pound..	35.9	35.1	35.1	34.3	31.0	31.0	37.5	32.3	32.6	36.2	34.0	33.9	36.8	32.7	32.7
Milk, fresh.....quart.....	14.0	14.0	14.0	15.5	16.0	16.0	18.0	18.0	18.0	11.3	11.3	11.0	13.0	13.0	13.0
Milk, evaporated.....16-ounce can..	10.8	10.2	10.3	10.7	10.4	10.4	11.2	10.8	10.8	11.4	11.1	11.1	11.1	10.6	10.5
Butter.....pound.....	54.9	55.3	55.5	54.5	53.8	53.8	57.9	58.0	57.8	49.7	49.0	48.8	49.2	49.1	48.7
Oleomargarine (all butter substitutes).....pound..	28.3	28.3	28.3	27.6	28.2	28.1	25.0	26.4	26.0	25.8	26.3	26.0	27.6	27.7	27.6
Cheese.....do.....	38.9	37.0	37.0	41.0	41.0	40.7	35.2	34.8	35.1	36.5	34.8	35.0	37.6	36.0	36.4
Lard.....do.....	18.3	18.5	18.5	19.2	19.6	19.6	17.7	17.9	17.9	19.3	19.4	19.0	18.1	17.9	18.2
Vegetable lard substitute.....pound..	19.7	19.6	19.7	25.9	25.8	25.9	21.3	21.8	21.8	25.5	25.4	25.6	27.4	27.6	27.8
Eggs, strictly fresh.....dozen.....	39.2	38.8	40.5	49.8	50.7	53.1	42.5	41.6	44.3	34.1	35.3	36.0	34.6	34.6	35.8
Bread.....pound.....	8.9	8.7	8.7	8.7	8.6	8.6	9.9	9.4	9.4	9.7	9.1	9.0	10.0	10.0	10.0
Flour.....do.....	7.1	6.6	6.5	5.5	4.9	5.0	5.9	5.2	5.2	4.5	4.1	4.1	5.3	4.4	4.6
Corn meal.....do.....	4.0	4.1	4.1	6.6	6.8	6.8	4.7	4.7	4.7	4.6	4.8	4.6	4.8	4.8	5.1
Rollod oats.....do.....	8.8	8.5	8.5	8.6	8.7	8.6	8.5	8.8	8.7	9.9	9.9	9.9	8.8	8.6	8.6
Corn flakes.....8-ounce package..	9.6	9.6	9.5	8.6	9.0	9.0	9.7	9.7	9.7	10.2	9.9	9.8	9.6	9.5	9.5
Wheat cereal.....28-ounce package..	24.8	24.8	24.8	24.2	24.3	24.1	24.8	24.5	24.9	28.0	27.3	27.4	26.3	25.8	25.8
Macaroni.....pound.....	10.8	10.9	10.7	20.8	20.9	20.5	19.0	19.2	19.3	21.2	21.2	21.4	18.9	18.7	18.7
Rice.....do.....	9.4	8.3	8.4	9.9	9.5	9.6	11.0	10.7	10.4	11.1	10.1	10.5	10.7	9.3	9.3
Beans, navy.....do.....	10.8	13.8	13.6	12.8	14.9	15.1	11.7	14.1	13.9	13.1	13.7	14.2	14.3	14.6	14.6
Potatoes.....do.....	2.9	3.4	4.3	2.5	3.5	4.1	2.1	3.7	3.9	1.8	2.3	3.0	2.0	1.8	2.7
Onions.....do.....	4.2	4.8	4.5	6.2	7.5	7.5	6.2	7.6	7.7	5.9	8.2	7.5	6.5	8.2	8.1
Cabbage.....do.....	4.3	4.6	4.9	4.3	5.2	5.2	3.3	3.5	4.3	1.8	5.6	2.6	3.8	5.6	4.2
Beans, baked.....No. 2 can.....	10.9	10.9	10.9	11.4	11.8	11.7	10.0	10.6	10.7	13.3	13.0	13.2	10.5	10.9	10.8
Corn, canned.....do.....	15.3	15.2	15.1	15.3	15.2	15.1	14.8	15.2	15.2	16.3	15.3	15.4	15.2	14.0	14.0
Peas, canned.....do.....	17.2	15.9	15.9	15.8	15.4	15.2	18.2	17.7	17.7	15.9	14.9	14.9	16.3	17.1	17.2
Tomatoes, canned.....No. 2 can.....	10.3	12.9	13.3	11.0	13.0	13.1	9.7	11.8	13.0	13.4	14.6	14.7	12.2	14.3	14.4
Sugar.....pound.....	6.6	5.8	5.9	6.6	5.6	5.7	6.9	6.3	6.3	7.4	6.4	6.5	8.1	6.9	6.8
Tea.....do.....	79.8	83.1	82.2	68.0	67.4	67.4	95.1	94.8	93.1	77.2	78.0	80.0	66.7	65.2	64.3
Coffee.....do.....	35.5	36.2	35.9	46.0	44.9	45.0	49.5	49.4	49.8	53.7	53.6	53.6	48.8	48.1	48.1
Prunes.....do.....	14.5	14.4	14.5	13.3	13.6	13.7	13.3	14.4	14.0	14.6	15.0	15.0	15.4	16.2	16.2
Raisins.....do.....	12.7	9.9	10.1	13.4	11.8	11.7	13.7	12.0	12.1	14.5	13.6	13.6	14.3	12.6	12.7
Bananas.....dozen.....	16.4	15.8	16.0	37.0	34.4	35.9	34.5	30.9	33.2	9.9	9.5	10.3	8.5	9.2	9.4
Oranges.....do.....	57.5	47.4	44.3	71.0	55.7	57.9	63.1	43.8	51.9	52.5	39.9	36.8	57.0	37.6	39.6

¹ Per pound.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN 51 CITIES, JULY 15, 1928, AND JUNE 15 AND JULY 15, 1929—Continued

Article	Philadelphia, Pa.			Pittsburgh, Pa.			Portland, Me.			Portland, Oreg.		
	July 15, 1928	1929		July 15, 1928	1929		July 15, 1928	1929		July 15, 1928	1929	
		June 15	July 15		June 15	July 15		June 15	July 15		June 15	July 15
Sirloin steak.....pound..	Cts. 65.9	Cts. 65.1	Cts. 69.2	Cts. 55.5	Cts. 57.1	Cts. 58.9	Cts. 70.7	Cts. 75.4	Cts. 77.7	Cts. 35.2	Cts. 39.6	Cts. 39.4
Round steak.....do.....	52.6	52.1	57.0	47.7	48.6	50.6	54.1	57.9	60.0	33.1	37.9	38.4
Rib roast.....do.....	42.3	42.2	45.0	40.0	42.6	42.9	35.8	39.2	41.3	29.7	32.2	31.7
Chuck roast.....do.....	34.7	35.4	37.3	32.7	34.3	35.2	27.9	29.2	31.7	23.1	28.1	27.3
Plate beef.....do.....	18.9	20.0	20.5	19.2	20.3	20.3	22.2	27.5	27.9	18.3	21.9	20.9
Pork chops.....do.....	41.0	42.5	45.2	39.9	40.6	42.4	37.6	38.8	41.2	35.8	36.8	38.8
Bacon, sliced.....do.....	42.3	43.0	43.6	47.8	49.1	49.2	41.7	40.4	39.2	50.6	51.3	51.9
Ham, sliced.....do.....	56.3	60.0	61.5	59.4	60.6	62.1	51.3	53.7	56.5	54.4	56.3	56.6
Lamb, leg of.....do.....	43.7	43.3	44.4	43.5	44.9	45.1	42.5	41.3	44.0	37.5	38.1	37.8
Hens.....do.....	41.1	44.6	43.0	44.4	49.9	48.4	42.3	45.3	44.5	34.8	37.2	36.7
Salmon, canned, red.....do.....	32.5	27.8	28.1	34.1	29.7	29.7	35.6	29.7	29.9	34.8	32.3	32.6
Milk, fresh.....quart..	13.0	13.0	13.0	13.0	14.0	14.0	15.0	15.0	15.0	12.0	12.0	12.0
Milk, evaporated.....16-ounce can..	11.5	10.9	10.9	10.4	10.5	10.5	12.2	11.6	11.7	10.0	10.1	10.1
Butter.....pound..	58.1	57.1	56.8	55.1	54.8	54.2	57.1	56.5	56.2	53.3	52.9	53.4
Oleomargarine (all butter substitutes).....pound..	28.5	28.5	28.5	28.3	27.8	27.8	26.6	27.1	27.1	25.8	26.2	26.2
Cheese.....do.....	42.5	43.0	43.4	41.3	41.9	41.3	39.1	39.1	38.8	38.0	38.1	38.3
Lard.....do.....	17.7	18.2	17.9	18.1	17.9	18.0	17.7	17.4	17.4	19.5	18.8	19.6
Vegetable lard substitute.....do.....	24.7	24.9	25.1	27.1	27.2	26.9	26.2	25.7	25.8	28.3	28.3	28.3
Eggs, strictly fresh.....dozen..	44.6	44.6	47.2	43.8	44.1	47.5	50.1	49.6	59.4	37.9	38.3	41.4
Bread.....pound..	9.2	8.2	8.2	9.1	8.9	8.9	10.1	8.6	8.6	9.2	9.3	9.3
Flour.....do.....	5.4	4.8	4.8	5.3	4.5	4.6	5.8	4.7	5.1	5.1	4.6	4.7
Corn meal.....do.....	5.3	5.2	5.2	6.0	6.0	6.3	5.0	5.2	5.3	5.9	5.6	5.8
Rolled oats.....do.....	8.5	8.2	8.2	9.1	9.2	9.0	8.0	7.7	7.7	10.5	10.0	10.1
Corn flakes.....8-ounce package..	9.0	8.7	8.7	9.6	9.6	9.6	9.5	9.6	9.7	9.5	9.6	9.6
Wheat cereal.....28-ounce package..	25.4	24.4	24.6	25.0	24.6	24.6	25.4	25.8	25.8	26.8	27.0	27.0
Macaroni.....pound..	20.7	20.3	20.4	22.6	22.6	22.7	23.2	23.1	23.0	18.6	18.3	18.5
Rice.....do.....	10.3	10.0	9.9	11.3	11.1	11.2	11.3	11.2	11.1	10.2	9.9	10.1
Beans, navy.....do.....	11.0	14.7	15.0	12.6	14.4	14.9	12.5	13.6	13.7	12.8	14.7	14.9
Potatoes.....do.....	2.5	3.7	4.1	1.8	3.8	3.7	2.0	2.3	4.1	2.6	3.1	4.0
Onions.....do.....	5.4	6.0	6.0	6.3	7.4	7.6	5.8	7.3	7.4	4.4	5.1	4.7
Cabbage.....do.....	4.6	4.4	4.3	4.3	5.1	5.3	5.7	5.3	5.2	4.1	4.9	3.6
Beans, baked.....No. 2 can..	11.1	11.3	11.1	12.7	13.0	13.1	14.9	15.7	15.5	12.3	13.3	13.5
Corn, canned.....do.....	14.7	15.0	14.8	16.0	15.8	16.0	14.2	14.3	14.4	17.9	17.9	18.3
Peas, canned.....do.....	15.4	15.2	15.1	17.0	16.7	16.7	17.4	17.8	18.2	17.3	16.9	16.9
Tomatoes, canned.....do.....	11.5	13.6	14.0	11.9	14.5	14.7	11.7	12.9	12.8	15.6	15.8	16.1
Sugar.....pound..	6.8	5.6	5.6	7.4	6.7	6.7	7.2	6.2	6.3	7.0	6.4	6.7
Tea.....do.....	69.7	70.5	72.0	80.2	81.9	82.5	62.2	61.5	61.5	80.7	77.8	77.4
Coffee.....do.....	44.0	43.9	43.7	49.2	49.5	49.5	52.1	52.6	52.7	53.2	53.2	53.0
Prunes.....do.....	12.8	13.1	13.2	14.4	14.4	14.6	11.6	13.6	13.8	11.2	14.8	14.4
Raisins.....do.....	13.4	10.7	10.9	13.5	11.6	11.7	12.3	10.8	10.7	13.2	10.9	11.5
Bananas.....dozen..	30.3	28.4	29.1	37.2	35.3	36.1	10.3	10.2	10.4	9.3	9.9	10.2
Oranges.....do.....	66.2	43.3	43.4	68.6	40.2	48.3	68.1	49.7	52.8	60.2	34.9	30.2

¹ The steak for which prices are here quoted is called "sirloin" in this city, but in most of the other cities included in this report it would be known as "porterhouse" steak.

² Per pound.

³ No. 2½ can.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN 51 CITIES, JULY 15, 1928, AND JUNE 15 AND JULY 15, 1929—Continued

Article	Providence, R. I.			Richmond, Va.			Rochester, N. Y.			St. Louis, Mo.		
	1928		1929	1928		1929	1928		1929	1928		1929
	July 15,	June 15		July 15,	June 15		July 15,	June 15		July 15,	June 15	
Sirloin steak.....pound.....	Cts. 80.4	Cts. 79.6	Cts. 82.5	Cts. 46.0	Cts. 50.0	Cts. 51.3	Cts. 50.4	Cts. 48.9	Cts. 52.2	Cts. 47.4	Cts. 48.2	Cts. 49.6
Round steak.....do.....	57.7	58.0	60.4	40.9	44.2	45.4	42.1	43.2	45.5	46.0	47.2	48.4
Rib roast.....do.....	44.3	43.9	46.2	35.2	37.4	38.1	36.8	36.0	36.9	36.2	38.0	38.4
Chuck roast.....do.....	35.9	34.7	37.6	27.1	28.7	29.4	31.7	32.2	32.5	29.0	30.6	31.9
Plate beef.....do.....	22.3	26.5	28.0	19.7	22.3	23.7	17.9	20.3	20.5	19.1	21.2	22.2
Pork chops.....do.....	42.0	40.9	42.2	36.4	38.1	39.0	41.1	39.8	43.5	36.0	33.8	37.2
Bacon, sliced.....do.....	41.3	41.1	41.7	39.9	38.7	38.5	37.9	36.9	38.8	41.3	42.0	42.2
Ham, sliced.....do.....	56.1	57.5	57.5	44.5	44.7	45.6	52.7	53.4	54.6	52.9	52.9	55.8
Lamb, leg of.....do.....	43.3	42.7	43.6	46.4	45.8	46.2	40.6	40.2	40.9	38.8	41.6	39.9
Hens.....do.....	41.7	45.3	44.0	34.0	40.7	39.4	40.4	44.9	42.3	33.6	40.5	40.2
Salmon, canned, red.....do.....	34.2	29.9	30.2	35.4	31.0	31.0	34.8	31.4	30.9	34.7	32.0	31.9
Milk, fresh.....quart.....	15.3	15.7	15.7	14.0	14.0	14.0	12.5	13.5	13.5	13.0	13.0	13.0
Milk, evaporated.....16-ounce can.....	11.5	11.2	11.2	12.1	12.0	12.0	11.2	11.0	11.1	10.0	10.0	10.0
Butter.....pound.....	54.8	54.1	54.9	59.4	56.3	57.1	53.8	54.2	53.2	55.3	55.0	54.6
Oleomargarine (all butter substitutes)pound.....	26.4	26.6	26.6	29.9	29.7	29.8	28.2	28.1	28.0	26.8	26.4	26.0
Cheese.....do.....	38.9	39.2	39.0	37.2	35.1	34.5	38.7	39.8	39.3	36.8	36.6	36.1
Lard.....do.....	17.6	17.6	17.3	17.2	17.4	17.5	16.9	17.3	16.8	15.2	14.9	15.0
Vegetable lard substitute.....do.....	26.5	26.2	26.3	25.9	25.4	25.4	26.3	25.7	25.6	25.3	25.3	25.2
Eggs, strictly fresh.....dozen.....	53.8	52.9	61.6	37.6	38.5	40.7	40.5	41.5	45.0	36.8	37.7	38.9
Bread.....pound.....	9.0	9.0	9.0	9.1	8.9	8.9	9.0	8.6	8.6	9.6	9.2	9.2
Flour.....do.....	5.9	5.1	5.4	5.7	4.8	4.8	5.6	4.9	4.9	5.4	4.7	4.7
Corn meal.....do.....	5.0	5.0	5.1	4.9	4.8	4.8	6.4	5.7	5.7	4.3	4.3	4.7
Rollod oats.....do.....	9.1	8.9	9.0	8.6	8.9	8.7	9.2	8.6	8.6	8.1	8.1	8.0
Corn flakes.....8-ounce package.....	9.4	9.5	9.5	9.4	9.7	9.7	9.2	9.3	9.3	8.9	9.1	9.1
Wheat cereal.....28-ounce package.....	24.8	24.8	24.8	26.0	25.8	25.8	25.6	25.3	25.0	24.8	24.2	24.2
Macaroni.....pound.....	22.6	22.8	22.8	19.9	20.6	20.1	20.6	18.6	18.9	19.2	19.5	19.8
Rice.....do.....	10.3	9.5	9.6	10.7	11.0	11.0	9.5	8.5	8.8	9.8	9.8	10.0
Beans, navy.....do.....	12.5	13.7	13.6	13.0	14.4	14.7	13.1	14.4	14.4	12.4	14.0	13.9
Potatoes.....do.....	1.9	3.1	3.7	2.7	3.4	3.2	1.9	2.1	3.6	2.2	4.0	4.5
Onions.....do.....	5.8	7.2	7.3	6.6	8.7	7.8	5.9	6.1	7.1	5.0	6.8	6.9
Cabbage.....do.....	4.0	4.4	4.2	5.0	2.9	2.9	3.8	5.8	6.8	2.6	4.3	4.4
Beans, baked.....No. 2 can.....	10.9	11.6	11.5	10.4	11.1	11.4	10.2	11.0	10.9	10.3	10.5	10.5
Corn, canned.....do.....	17.1	16.4	16.6	15.2	15.3	15.6	16.4	16.2	15.8	15.3	15.2	15.1
Peas, canned.....do.....	18.2	17.9	17.4	18.1	17.5	17.5	17.4	17.1	17.1	14.7	15.0	15.1
Tomatoes, canned.....do.....	12.9	13.6	13.6	10.7	13.1	14.4	13.9	15.5	16.1	10.5	13.2	13.8
Sugar.....do.....	7.0	5.9	6.0	7.0	6.0	6.1	6.8	5.7	5.9	7.2	6.3	6.5
Tea.....do.....	60.1	59.8	60.4	89.8	96.1	95.0	70.9	67.6	67.6	76.4	74.0	73.6
Coffee.....do.....	50.9	52.1	52.3	47.1	47.1	47.1	48.3	47.5	47.5	46.8	46.8	47.3
Prunes.....do.....	12.9	13.7	13.6	14.1	14.2	14.2	13.9	14.7	15.4	14.8	14.8	15.0
Raisins.....do.....	13.3	11.8	11.7	13.3	10.8	10.8	14.0	11.4	12.1	13.9	11.3	11.2
Bananas.....dozen.....	31.1	33.3	32.1	35.9	32.5	32.5	31.2	27.5	26.3	31.2	32.0	32.5
Oranges.....do.....	75.1	54.2	55.7	67.0	39.3	41.2	63.1	45.8	44.4	59.3	45.8	46.5

¹ The steak for which prices are here quoted is called "sirloin" in this city, but in most of the others included in this report it would be known as "porterhouse" steak.

WHOLESALE AND RETAIL PRICES

237

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN 51 CITIES, JULY 15, 1928, AND JUNE 15 AND JULY 15, 1929—Continued

Article	St. Paul, Minn.			Salt Lake City, Utah			San Francisco, Calif.			Savannah, Ga.		
	July 15, 1928	1929		July 15, 1928	1929		July 15, 1928	1929		July 15, 1928	1929	
		June 15	July 15		June 15	July 15		June 15	July 15		June 15	July 15
Sirloin steak.....pound..	Cts. 44.7	Cts. 45.3	Cts. 45.8	Cts. 37.2	Cts. 40.4	Cts. 41.2	Cts. 37.3	Cts. 40.6	Cts. 41.1	Cts. 41.7	Cts. 45.0	Cts. 44.5
Round steak.....do.....	39.0	39.8	41.2	35.8	38.8	39.2	34.7	38.7	38.9	34.4	39.5	40.0
Rib roast.....do.....	35.6	36.0	36.6	28.3	32.7	33.2	33.0	35.5	36.0	31.1	35.7	35.7
Chuck roast.....do.....	29.9	30.2	31.0	23.7	27.4	27.5	22.4	25.2	25.2	23.6	27.2	28.0
Plate beef.....do.....	17.8	19.2	19.1	16.7	20.6	20.4	17.4	20.0	19.7	20.3	21.1	22.4
Pork chops.....do.....	36.0	34.2	36.0	36.4	38.6	39.7	41.6	42.0	42.1	30.3	31.3	32.3
Bacon, sliced.....do.....	44.9	43.8	44.5	44.8	44.8	45.4	54.6	55.7	55.6	38.1	39.0	39.5
Ham, sliced.....do.....	49.4	49.6	50.3	55.8	57.3	59.2	60.7	63.1	63.5	41.5	44.5	45.5
Lamb, leg of.....do.....	36.9	34.8	33.9	38.3	41.9	39.8	39.0	38.7	40.5	40.0	41.2	37.8
Hens.....do.....	30.7	37.4	34.4	32.3	35.7	35.0	41.1	45.0	44.1	30.0	35.4	32.5
Salmon, canned, red.....do.....	39.8	35.7	35.8	34.9	33.6	33.4	32.5	28.1	28.4	35.9	32.8	33.0
Milk, fresh.....quart.....	12.0	12.0	12.0	10.0	10.0	10.0	14.0	14.0	14.0	16.0	17.5	17.5
Milk, evaporated.....16-ounce can.....	11.7	11.5	11.5	10.1	10.0	9.9	9.9	9.9	9.9	11.0	10.8	10.7
Butter.....pound.....	49.3	49.4	48.3	50.2	49.9	50.5	54.5	54.5	54.7	54.5	55.2	54.6
Oleomargarine (all butter substitutes).....pound.....	23.9	23.9	24.2	25.8	26.0	28.8	25.4	25.1	24.9	29.9	30.2	30.2
do.....do.....	36.2	35.6	35.5	30.9	29.6	29.6	40.4	40.2	40.2	34.6	35.6	34.9
Cheese.....do.....	18.5	18.7	18.7	20.2	19.7	19.7	22.3	22.5	22.7	17.4	18.3	18.6
Lard.....do.....	28.3	27.3	27.0	29.0	29.3	29.5	27.3	27.8	27.8	17.3	17.3	17.2
Vegetable lard substitute.....pound.....	36.0	35.7	37.1	36.2	35.0	38.2	40.6	40.0	42.2	42.8	39.3	41.3
Eggs, strictly fresh.....dozen.....	9.3	9.3	9.3	9.7	9.7	9.7	9.5	9.3	9.3	10.6	10.7	10.7
Bread.....pound.....	5.2	4.5	4.8	4.2	3.6	3.6	5.8	5.1	5.1	6.7	6.4	6.4
Flour.....do.....	5.1	5.3	5.3	5.7	5.9	5.9	7.0	7.0	7.1	3.7	3.6	3.7
Corn meal.....do.....	9.9	10.1	10.1	8.6	8.6	9.2	10.0	9.8	9.8	8.5	8.6	8.9
Rollod oats.....do.....	10.1	10.4	10.3	9.8	10.2	10.2	9.7	9.6	9.6	9.5	9.6	9.7
Corn flakes.....8-ounce package.....	26.7	25.8	25.8	25.1	25.5	25.1	25.2	25.2	25.2	24.4	24.0	24.0
Wheat cereal.....28-ounce package.....	18.8	18.8	18.5	19.6	19.3	19.5	15.8	15.9	15.9	18.2	18.1	17.7
Macaroni.....pound.....	10.5	10.7	10.7	8.6	8.9	8.6	10.1	9.6	9.7	8.9	9.2	9.2
Rice.....do.....	13.3	14.7	14.7	11.3	12.6	12.6	11.8	13.3	13.4	11.8	15.1	14.8
Beans, navy.....do.....	1.7	1.3	2.6	1.7	2.3	4.6	2.7	3.6	4.2	3.3	3.4	3.7
Potatoes.....do.....	6.0	6.8	6.8	6.4	7.5	7.4	4.4	5.0	4.3	7.1	7.4	7.5
Onions.....do.....	3.1	5.1	4.0	3.7	5.8	4.8	12.9	12.9	13.0	11.6	10.8	10.8
Cabbage.....do.....	13.8	13.7	13.9	12.1	12.7	12.7	12.9	12.9	13.0	11.6	10.8	10.8
Beans, baked.....No. 2 can.....	14.9	15.1	14.9	14.0	14.1	14.3	17.4	17.6	17.5	15.3	14.8	15.0
Corn, canned.....do.....	14.7	14.9	14.8	14.9	15.0	15.1	18.3	18.0	17.8	16.0	16.7	16.2
Peas, canned.....do.....	14.0	14.7	14.7	13.8	13.9	14.1	14.2	15.8	15.9	9.7	11.6	11.8
Tomatoes, canned.....do.....	7.5	6.7	6.7	7.8	6.6	6.8	6.8	6.2	6.1	7.1	6.1	6.1
Sugar.....pound.....	67.0	71.3	72.7	84.6	85.3	85.0	71.4	73.1	72.8	82.3	80.3	81.8
Tea.....do.....	53.3	52.3	53.3	53.7	54.9	54.9	54.1	53.3	53.5	45.9	46.2	45.6
Coffee.....do.....	13.4	14.4	14.8	12.8	13.6	13.6	11.6	12.4	12.5	12.5	13.5	13.8
Prunes.....do.....	14.5	13.4	13.5	13.2	11.5	11.6	11.9	10.4	10.6	13.3	12.2	11.7
Raisins.....dozen.....	10.2	9.9	10.2	12.3	11.5	11.1	27.8	30.2	29.1	27.0	29.0	29.5
Bananas.....do.....	63.9	48.4	46.0	56.9	36.6	35.4	57.6	43.5	42.4	57.7	40.3	42.8
Oranges.....do.....												

* Per pound.

* No. 2½ can.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN 51 CITIES, JULY 15, 1928, AND JUNE 15 AND JULY 15, 1929—Continued

Article	Scranton, Pa.			Seattle, Wash.			Springfield, Ill.			Washington, D. C.		
	July 15, 1928	1929		July 15, 1928	1929		July 15, 1928	1929		July 15, 1928	1929	
		June 15	July 15		June 15	July 15		June 15	July 15		June 15	July 15
Sirloin steak.....pound..	Cts. 63.5	Cts. 62.8	Cts. 64.0	Cts. 40.5	Cts. 46.3	Cts. 45.2	Cts. 47.1	Cts. 45.6	Cts. 47.0	Cts. 56.6	Cts. 57.1	Cts. 59.7
Round steak.....do.....	52.0	52.8	54.8	36.5	41.1	40.5	46.6	46.1	47.2	49.3	52.2	54.3
Rib roast.....do.....	43.2	43.7	44.2	32.2	35.9	35.4	31.6	34.0	35.6	39.4	39.9	40.9
Chuck roast.....do.....	34.5	36.0	36.7	24.9	28.4	28.2	30.7	30.5	31.7	32.3	33.3	35.2
Plate beef.....do.....	16.2	20.1	20.4	19.2	22.8	21.5	19.5	21.9	22.5	18.4	20.2	20.8
Pork chops.....do.....	40.2	41.3	44.5	39.4	39.9	41.8	33.1	33.5	34.4	40.3	40.4	43.6
Bacon, sliced.....do.....	47.4	47.0	46.9	54.3	54.4	55.0	44.1	44.1	44.5	41.7	41.8	43.5
Ham, sliced.....do.....	57.1	60.8	62.5	60.0	59.8	60.2	51.4	51.4	54.1	57.5	59.3	60.2
Lamb, leg of.....do.....	49.5	48.6	48.7	39.2	41.7	39.0	43.6	44.4	44.8	44.4	42.6	43.3
Hens.....do.....	43.8	47.6	46.4	34.3	37.7	36.8	34.1	35.9	35.3	40.7	46.4	46.1
Salmon, canned, red.....do.....	35.0	33.6	32.5	36.5	32.6	32.9	37.4	34.1	34.2	34.5	29.3	29.9
Milk, fresh.....quart.....	13.0	13.0	13.0	12.0	12.0	12.0	14.4	14.4	14.4	15.0	14.8	14.8
Milk, evaporated.....16-ounce can..	11.8	11.4	11.4	10.2	10.2	10.2	11.8	11.6	11.3	11.8	11.5	11.6
Butter.....pound.....	56.1	55.3	54.9	53.8	53.9	54.1	53.0	51.3	50.8	57.7	56.4	56.0
Oleomargarine (all butter substitutes).....pound..	27.3	27.8	27.8	25.1	25.0	25.0	28.3	28.2	28.6	27.6	26.0	26.5
Cheese.....do.....	38.8	38.4	38.4	35.3	35.5	35.7	38.8	37.7	36.9	39.9	41.1	41.4
Lard.....do.....	19.0	19.2	20.6	20.4	20.0	19.8	18.1	17.8	17.6	18.0	17.1	17.8
Vegetable lard substitute.....do.....	26.3	26.6	26.4	27.6	26.6	26.5	27.8	27.4	27.8	24.7	24.6	24.6
Eggs, strictly fresh.....dozen.....	44.2	44.9	48.6	37.5	38.7	41.0	36.0	34.9	35.6	43.7	44.7	46.2
Bread.....pound.....	10.7	9.7	9.7	9.6	9.6	9.6	10.2	10.1	10.1	8.9	8.9	8.9
Flour.....do.....	5.9	5.3	5.3	5.0	4.7	4.7	5.5	4.5	4.4	6.0	5.2	5.4
Corn meal.....do.....	7.7	7.7	7.7	5.6	6.0	5.9	4.7	4.8	4.6	5.2	5.2	5.1
Rollod oats.....do.....	9.9	9.9	9.9	8.5	8.8	8.8	9.9	9.6	9.5	9.1	9.1	9.1
Corn flakes.....8-ounce package.....	9.9	9.8	9.8	9.7	9.8	9.9	10.0	9.5	9.5	9.4	9.2	9.2
Wheat cereal.....28-ounce package.....	25.6	25.3	25.5	26.6	26.7	26.7	28.1	27.3	27.2	24.8	24.3	24.2
Macaroni.....pound.....	22.5	22.7	22.7	17.9	18.2	18.1	19.4	18.6	18.4	22.6	22.2	21.9
Rice.....do.....	10.3	10.0	10.0	10.7	10.2	10.3	10.3	10.0	9.9	10.7	11.2	11.2
Beans, navy.....do.....	12.1	13.8	14.1	12.9	14.4	14.8	13.7	14.2	14.2	12.7	14.2	14.1
Potatoes.....do.....	2.0	3.5	3.7	2.0	3.3	3.8	2.3	2.6	3.9	2.3	3.8	4.0
Onions.....do.....	6.9	7.2	6.8	4.4	5.7	5.4	7.1	7.8	7.5	6.6	7.3	7.4
Cabbage.....do.....	4.8	4.6	4.6	4.4	5.5	4.7	3.6	5.6	4.8	4.3	4.4	4.5
Beans, baked.....No. 2 can.....	11.5	12.2	12.2	11.5	12.8	12.5	10.7	11.3	10.5	11.1	10.5	10.9
Corn, canned.....do.....	17.3	16.9	16.9	18.4	17.6	17.9	14.8	14.9	14.9	15.1	15.4	15.8
Peas, canned.....do.....	17.8	17.6	17.4	19.4	18.3	18.3	15.9	16.3	15.5	15.2	14.8	14.8
Tomatoes, canned.....do.....	12.1	13.6	14.0	16.1	16.7	16.6	13.4	14.5	15.1	10.0	12.4	12.9
Sugar.....pound.....	7.1	6.4	6.5	7.1	6.0	6.3	7.9	6.9	6.8	7.0	6.1	6.3
Tea.....do.....	68.1	66.1	66.1	76.0	78.8	79.5	84.6	84.2	83.1	96.3	90.7	90.9
Coffee.....do.....	51.2	50.0	49.8	51.4	51.5	51.0	52.4	51.7	51.7	47.5	46.1	46.5
Prunes.....do.....	14.1	14.8	14.6	12.3	14.6	14.6	14.4	15.4	15.8	14.5	15.2	16.0
Raisins.....do.....	14.0	12.0	11.9	13.1	10.7	10.7	14.3	11.9	12.3	13.8	13.1	13.0
Bananas.....dozen.....	31.2	30.8	30.0	10.1	10.2	10.8	8.4	9.1	9.2	28.2	28.5	30.8
Oranges.....do.....	71.4	48.7	52.3	57.6	34.8	38.8	69.3	49.0	48.2	69.1	43.6	48.5

* Per pound.

* No. 2½ can.

Comparison of Retail Food Costs in 51 Cities

TABLE 6 shows for 39 cities the percentage of increase or decrease in the retail cost of food ³ in July, 1929, compared with the average cost in the year 1913, in July, 1928, and June, 1929. For 12 other cities comparisons are given for the 1-year and the 1-month periods; these cities have been scheduled by the bureau at different dates since 1913. The percentage changes are based on actual retail prices secured each month from retail dealers and on the average family consumption of these articles in each city.⁴

Effort has been made by the bureau each month to have all schedules for each city included in the average prices. For the month of July, 99 per cent of all the firms supplying retail prices in the 51 cities sent in a report promptly. The following-named 37 cities had a perfect record; that is, every merchant who is cooperating with the bureau sent in his report in time for his prices to be included in the city averages: Atlanta, Baltimore, Birmingham, Bridgeport, Butte, Charleston, S. C., Cincinnati, Cleveland, Columbus, Dallas, Detroit, Fall River, Houston, Indianapolis, Jacksonville, Kansas City, Little Rock, Los Angeles, Louisville, Manchester, Memphis, Milwaukee, Minneapolis, New Haven, Omaha, Philadelphia, Pittsburgh, Portland, Me., Portland, Oreg., Rochester, St. Louis, St. Paul, Salt Lake City, San Francisco, Scranton, Springfield, Ill., and Washington, D. C.

TABLE 6.—PERCENTAGE CHANGE IN THE RETAIL COST OF FOOD IN JULY, 1929, COMPARED WITH THE COST IN JUNE, 1929, JULY, 1928, AND WITH THE AVERAGE COST IN THE YEAR 1913, BY CITIES

City	Percentage increase, July, 1929, compared with—			City	Percentage increase, July, 1929, compared with—		
	1913	July, 1928	June, 1929		1913	July, 1928	June, 1929
Atlanta.....	61.0	3.5	1.6	Minneapolis.....	59.4	4.7	2.2
Baltimore.....	63.9	3.5	2.9	Mobile.....		3.0	1.5
Birmingham.....	60.2	1.4	1.0	Newark.....	52.0	2.7	2.0
Boston.....	60.8	4.3	4.5	New Haven.....	59.3	3.2	3.0
Bridgeport.....		3.1	2.7	New Orleans.....	57.1	3.4	2.1
Buffalo.....	63.3	5.4	2.2	New York.....	60.7	4.3	2.3
Butte.....		6.5	4.1	Norfolk.....		3.1	1.8
Charleston, S. C.....	55.8	1.9	0.1	Omaha.....	49.8	2.2	1.0
Chicago.....	70.0	3.3	2.1	Peoria.....		1.0	2.2
Cincinnati.....	64.1	4.4	1.4	Philadelphia.....	60.3	2.2	2.3
Cleveland.....	57.5	2.6	1.9	Pittsburgh.....	60.4	5.6	1.0
Columbus.....		5.7	2.8	Portland, Me.....		4.3	5.8
Dallas.....	57.2	3.4	1.2	Portland, Oreg.....	46.1	4.6	2.2
Denver.....	44.4	2.9	2.5	Providence.....	61.9	5.1	3.4
Detroit.....	68.4	5.2	2.6	Richmond.....	60.5	0.9	0.7
Fall River.....	57.6	4.7	4.7	Rochester.....		4.3	4.3
Houston.....		5.3	1.4	St. Louis.....	65.0	6.0	2.2
Indianapolis.....	57.3	3.7	3.4	St. Paul.....		2.3	3.5
Jacksonville.....	45.6	0.8	1.8	Salt Lake City.....	41.9	7.8	5.3
Kansas City.....	54.8	4.7	2.4	San Francisco.....	53.6	3.5	1.4
Little Rock.....	50.2	4.2	0.8	Savannah.....		2.9	1.1
Los Angeles.....	44.9	3.6	0.5	Scranton.....	64.2	2.3	1.4
Louisville.....	56.0	2.1	* 0.2	Seattle.....	50.9	5.4	1.0
Manchester.....	57.1	2.0	4.3	Springfield, Ill.....		2.2	3.0
Memphis.....	52.2	3.2	1.2	Washington.....	67.8	3.5	2.2
Milwaukee.....	65.2	6.4	6.1				

* Decrease.

³ For list of articles see note 1, p. 224.

⁴ The consumption figures used from January, 1913, to December, 1920, for each article in each city are given in the Labor Review for November, 1918, pp. 94 and 95. The consumption figures which have been used for each month, beginning with January, 1921, are given in the Labor Review for March, 1921, p. 26.

Retail Prices of Coal in the United States ⁵

THE following table shows the average retail prices of coal on July 15, 1928, and June 15 and July 15, 1929, for the United States and for each of the cities from which retail food prices have been obtained. The prices quoted are for coal delivered to consumers, but do not include charges for storing the coal in cellar or coal bin where an extra handling is necessary.

In addition to the prices for Pennsylvania anthracite, prices are shown for Colorado, Arkansas, and New Mexico anthracite in those cities where these form any considerable portion of the sales for household use.

The prices shown for bituminous coal are averages of prices of the several kinds sold for household use.

AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON JULY 15, 1928, AND JUNE 15 AND JULY 15, 1929

City, and kind of coal	1928	1929		City, and kind of coal	1928	1929	
	July 15	June 15	July 15		July 15	June 15	July 15
United States:				Cincinnati, Ohio:			
Pennsylvania anthracite—				Bituminous—			
Stove—				Prepared sizes—			
Average price.....	\$14.91	\$14.82	\$14.94	High volatile.....	\$5.60	\$5.45	\$5.70
Index (1913=100).....	192.9	191.8	193.4	Low volatile.....	7.50	7.38	7.63
Chestnut—				Cleveland, Ohio:			
Average price.....	\$14.63	\$14.48	\$14.63	Pennsylvania anthracite—			
Index (1913=100).....	184.9	183.0	184.8	Stove.....	15.05	15.10	15.10
Bituminous—				Chestnut.....	14.62	14.55	14.55
Average price.....	\$8.69	\$8.50	\$8.62	Bituminous—			
Index (1913=100).....	159.9	156.5	158.6	Prepared sizes—			
Atlanta, Ga.:				High volatile.....	7.38	7.06	7.19
Bituminous, prepared sizes.....	\$7.37	\$7.22	\$7.49	Low volatile.....	9.12	9.03	9.03
Baltimore, Md.:				Columbus, Ohio:			
Pennsylvania anthracite—				Bituminous—			
Stove.....	* 15.25	13.50	14.00	Prepared sizes—			
Chestnut.....	* 14.75	13.00	13.50	High volatile.....	5.95	5.75	5.79
Bituminous, run of mine—				Low volatile.....	7.25	7.25	7.31
High volatile.....	7.82	7.79	7.79	Dallas, Tex.:			
Birmingham, Ala.:				Arkansas anthracite—Egg.....	14.75	14.00	14.50
Bituminous, prepared sizes.....	7.05	6.95	6.98	Bituminous, prepared sizes.....	12.20	11.83	12.33
Boston, Mass.:				Denver, Colo.:			
Pennsylvania anthracite—				Colorado anthracite—			
Stove.....	15.50	15.25	15.80	Furnace, 1 and 2 mixed.....	15.80	14.50	14.80
Chestnut.....	15.25	14.75	15.30	Stove, 3 and 5 mixed.....	15.80	13.83	14.30
Bridgeport, Conn.:				Bituminous, prepared sizes.....	10.17	9.39	9.67
Pennsylvania anthracite—				Detroit, Mich.:			
Stove.....	14.50	14.50	14.50	Pennsylvania anthracite—			
Chestnut.....	14.50	14.50	14.50	Stove.....	15.50	15.50	15.50
Buffalo, N. Y.:				Chestnut.....	15.00	15.00	15.00
Pennsylvania anthracite—				Bituminous—			
Stove.....	13.65	13.23	13.23	Prepared sizes—			
Chestnut.....	13.25	12.73	12.90	High volatile.....	8.23	8.31	8.23
Butte, Mont.:				Low volatile.....	10.13	9.53	9.53
Bituminous, prepared sizes.....	10.87	10.86	11.20	Run of mine—			
Charleston, S. C.:				Low volatile.....	7.67	7.83	7.67
Bituminous, prepared sizes.....	11.00	9.67	9.67	Fall River, Mass.:			
Chicago, Ill.:				Pennsylvania anthracite—			
Pennsylvania anthracite—				Stove.....	16.00	15.75	16.00
Stove.....	16.25	16.41	16.55	Chestnut.....	15.75	15.50	16.00
Chestnut.....	15.95	15.95	16.10	Houston, Tex.:			
Bituminous—				Bituminous, prepared sizes.....	11.40	12.00	11.60
Prepared sizes—				Indianapolis, Ind.:			
High volatile.....	7.96	7.62	7.74	Bituminous—			
Low volatile.....	10.35	10.10	10.35	Prepared sizes—			
Run of mine—				High volatile.....	6.25	6.00	6.01
Low volatile.....	7.50	7.50	7.50	Low volatile.....	8.11	7.93	7.93
				Run of mine—			
				Low volatile.....	6.92	6.63	6.63

* Per ton of 2,240 pounds.

⁵ Prices of coal were formerly secured semiannually and published in the March and September issues of the Labor Review. Since June, 1920, these prices have been secured and published monthly.

AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON JULY 15, 1928, AND JUNE 15 AND JULY 15, 1929—Continued

City, and kind of coal	1928	1929		City, and kind of coal	1928	1929	
	July 15	June 15	July 15		July 15	June 15	July 15
Jacksonville, Fla.: Bituminous, prepared sizes	\$12.00	\$12.00	\$12.00	Pittsburgh, Pa.: Pennsylvania anthracite— Chestnut	\$14.50	\$15.00	\$15.00
Kansas City, Mo.: Arkansas anthracite— Furnace	12.60	11.85	12.00	Bituminous, prepared sizes	5.12	5.18	5.18
Stove No. 4	14.33	13.00	13.17	Portland, Me.: Pennsylvania anthracite— Stove	16.56	15.84	16.20
Bituminous, prepared sizes	7.47	7.20	7.28	Chestnut	16.56	15.84	16.20
Little Rock, Ark.: Arkansas anthracite—Egg	12.50	12.75	12.50	Portland, Oreg.: Bituminous, prepared sizes	12.46	12.46	12.57
Bituminous, prepared sizes	9.10	9.40	9.45	Providence, R. I.: Pennsylvania anthracite— Stove	¹ 15.50	¹ 15.25	¹ 15.50
Los Angeles, Calif.: Bituminous, prepared sizes	15.00	16.50	15.75	Chestnut	¹ 15.50	¹ 15.25	¹ 15.50
Louisville, Ky.: Bituminous— Prepared sizes— High volatile	6.15	6.15	6.16	Richmond, Va.: Pennsylvania anthracite— Stove	13.83	14.00	14.00
Low volatile	8.75	8.75	8.75	Chestnut	13.83	14.00	14.00
Manchester, N. H.: Pennsylvania anthracite— Stove	16.75	16.25	16.50	Bituminous— Prepared sizes— High volatile	7.75	7.88	8.00
Chestnut	16.33	16.25	16.50	Low volatile	8.61	8.56	8.56
Memphis, Tenn.: Bituminous, prepared sizes	6.46	7.35	7.39	Run of mine— Low volatile	6.75	6.75	6.75
Milwaukee, Wis.: Pennsylvania anthracite— Stove	15.95	15.95	16.00	Rochester, N. Y.: Pennsylvania anthracite— Stove	14.29	14.25	14.25
Chestnut	15.65	15.50	15.60	Chestnut	13.94	13.75	13.75
Bituminous— Prepared sizes— High volatile	7.80	7.68	7.67	St. Louis, Mo.: Pennsylvania anthracite— Stove	16.40	16.20	16.45
Low volatile	10.46	10.38	10.49	Chestnut	16.15	15.95	16.20
Minneapolis, Minn.: Pennsylvania anthracite— Stove	17.95	17.95	18.00	Bituminous, prepared sizes	7.95	5.82	6.28
Chestnut	17.65	17.50	17.60	St. Paul, Minn.: Pennsylvania anthracite— Stove	17.95	17.95	18.00
Bituminous— Prepared sizes— High volatile	10.94	10.23	10.41	Chestnut	17.65	17.50	17.60
Low volatile	13.50	13.08	13.24	Bituminous— Prepared sizes— High volatile	10.71	9.94	10.18
Mobile, Ala.: Bituminous, prepared sizes	9.60	9.14	9.02	Low volatile	13.50	13.08	13.27
Newark, N. J.: Pennsylvania anthracite— Stove	13.70	13.65	13.65	Salt Lake City, Utah: Colorado anthracite— Furnace, 1 and 2 mixed	18.00	18.00	18.00
Chestnut	13.25	13.15	13.15	Stove, 3 and 5 mixed	18.00	18.00	18.00
New Haven, Conn.: Pennsylvania anthracite— Stove	14.65	14.48	14.60	Bituminous, prepared sizes	8.48	7.00	7.93
Chestnut	14.65	14.48	14.60	San Francisco, Calif.: New Mexico anthracite— Cerillos egg	25.00	25.00	25.00
New Orleans, La.: Bituminous, prepared sizes	9.21	9.21	9.21	Colorado anthracite— Egg	24.50	24.50	24.50
New York, N. Y.: Pennsylvania anthracite— Stove	14.50	14.08	14.13	Bituminous, prepared sizes	16.00	16.25	16.00
Chestnut	14.00	13.58	13.63	Savannah, Ga.: Bituminous, prepared sizes	¹ 9.80	¹ 9.54	¹ 9.54
Norfolk, Va.: Pennsylvania anthracite— Stove	14.00	14.00	14.00	Scranton, Pa.: Pennsylvania anthracite— Stove	10.28	10.08	10.12
Chestnut	14.00	14.00	14.00	Chestnut	10.08	9.72	9.75
Bituminous— Prepared sizes— High volatile	7.81	7.81	7.81	Seattle, Wash.: Bituminous, prepared sizes	9.63	10.39	10.42
Low volatile	9.50	9.00	9.00	Springfield, Ill.: Bituminous, prepared sizes	4.44	4.34	4.34
Run of mine— Low volatile	7.00	7.00	7.00	Washington, D. C.: Pennsylvania anthracite— Stove	¹ 15.11	¹ 15.13	¹ 15.29
Omaha, Neb.: Bituminous, prepared sizes	9.10	9.53	9.60	Chestnut	¹ 14.74	¹ 14.63	¹ 14.79
Peoria, Ill.: Bituminous, prepared sizes	6.52	6.46	6.49	Bituminous— Prepared sizes— High volatile	¹ 8.63	¹ 8.63	¹ 8.63
Philadelphia, Pa.: Pennsylvania anthracite— Stove	¹ 13.96	¹ 14.43	¹ 14.50	Low volatile	¹ 10.33	¹ 11.00	¹ 11.00
Chestnut	¹ 13.71	¹ 13.93	¹ 14.07	Run of mine— Mixed	¹ 7.60	¹ 7.63	¹ 7.63

¹ Per ton of 2,240 pounds.

² The average price of coal delivered in bin is 50 cents higher than here shown. Practically all coal is delivered in bin.

³ All coal sold in Savannah is weighed by the city. A charge of 10 cents per ton or half ton is made. This additional charge has been included in the above price.

Wholesale Prices in the United States and in Foreign Countries, 1923 to June, 1929

IN THE following table the more important index numbers of wholesale prices in foreign countries and those of the United States Bureau of Labor Statistics have been brought together in order that the trend of prices in the several countries may be compared. The base periods here shown are those appearing in the sources from which the information has been drawn, in most cases being the year 1913. Only general comparisons can be made from these figures, since, in addition to differences in the base periods, there are important differences in the composition of the index numbers themselves.

INDEX NUMBERS OF WHOLESALE PRICES IN THE UNITED STATES AND IN CERTAIN FOREIGN COUNTRIES

Country----	United States	Canada	Austria	Belgium	Czechoslovakia	Denmark	Finland	France	Germany	Italy
Computing agency----	Bureau of Labor Statistics (revised)	Dominion Bureau of Statistics (revised)	Federal Statistical Bureau	Ministry of Industry and Labor	Central Bureau of Statistics (revised index)	Statistical Department	Central Bureau of Statistics (revised)	General Statistical Bureau	Federal Statistical Bureau	Riccardo Bachi (revised)
Base period--	1926	1926	January-June, 1914	April, 1914	July, 1914	1913	1926	1913	1913	1913
Commodities-----	550	502	47	128	69	118	139	45	400	100
Year and month										
1923-----	100.6	98.0	124	497	977			419		¹ 503.9
1924-----	98.1	99.4	136	573	997			488	137.3	¹ 497.4
1925-----	103.5	102.6	136	558	1008	210		550	141.8	¹ 612.0
1926-----	100.0	100.0	123	744	954	163	100	703	134.4	¹ 618.2
1927-----	95.4	97.7	133	847	979	153	101	617	137.6	¹ 466.7
1928-----	97.7	96.4	130	843	977	153	102	620	140.0	¹ 453.1
1923										
January-----	102.0			434	991			387		516.1
April-----	103.9			480	1012			415		525.7
July-----	98.4			504	949			407		503.9
October-----	99.4			515	960			421		499.6
1924										
January-----	99.6			580	974			494		504.4
April-----	97.3			555	1008			450		510.3
July-----	95.6			566	953			481		497.4
October-----	98.2			555	999			497		522.0
1925										
January-----	102.9			559	1045	243		514		568.2
February-----	104.0			551	1048	240		515		571.1
March-----	104.2			546	1034	236		514		571.2
April-----	101.9			538	1020	230		513		570.1
May-----	101.6			537	1006	227		520		571.2
June-----	103.0			552	998	223		543		590.9
July-----	104.3			559	1009	212		557		612.0
August-----	103.9			567	993	197		557		630.6
September-----	103.4			577	996	186		556		621.5
October-----	103.6			575	989	179		572		617.1
November-----	104.5			569	977	176		605		612.3
December-----	103.4			565	977	176		633		613.8

¹ July.

INDEX NUMBERS OF WHOLESALE PRICES IN THE UNITED STATES AND IN CERTAIN FOREIGN COUNTRIES—Continued

Country----	United States	Canada	Austria	Belgium	Czechoslovakia	Denmark	Finland	France	Germany	Italy
Computing agency----	Bureau of Labor Statistics (revised)	Dominion Bureau of Statistics (revised)	Federal Statistical Bureau	Ministry of Industry and Labor	Central Bureau of Statistics (revised index)	Statistical Department	Central Bureau of Statistics (revised)	General Statistical Bureau	Federal Statistical Bureau	Riccardo Bachi (revised)
Base period.	1926	1926	January-June, 1914	April, 1914	July, 1914	1913	1926	1913	1913	1913
Commodities-----	550	502	47	128	69	118	139	45	400	100
Year and month										
1926										
January-----	103.6	103.0	122	560	966	172	-----	634	135.8	608.0
February-----	102.1	102.1	120	556	950	165	-----	636	134.3	603.5
March-----	100.4	101.3	119	583	938	158	-----	632	133.1	592.3
April-----	100.1	101.2	119	621	923	157	-----	650	132.7	590.0
May-----	100.5	100.2	118	692	928	158	-----	688	132.3	595.8
June-----	100.5	100.2	124	761	926	157	-----	738	131.9	604.9
July-----	99.5	100.2	126	876	948	158	-----	836	132.1	618.2
August-----	99.0	99.1	126	836	963	162	-----	769	134.0	632.5
September-----	99.7	98.5	123	859	973	162	-----	787	134.9	622.0
October-----	99.4	98.1	125	856	972	178	-----	751	136.2	596.7
November-----	98.4	97.6	128	865	978	170	-----	684	137.1	594.2
December-----	97.9	97.9	127	800	978	158	-----	627	137.1	573.6
1927										
January-----	96.6	97.8	130	856	979	157	100	622	135.9	558.2
February-----	95.9	97.6	130	854	975	156	101	632	135.6	555.8
March-----	94.5	97.3	133	858	976	153	101	641	135.0	544.7
April-----	93.7	97.5	135	846	979	152	100	636	134.8	521.3
May-----	93.7	98.5	137	848	988	152	100	628	137.1	496.2
June-----	93.8	98.9	142	851	990	152	101	622	137.9	473.4
July-----	94.1	98.6	140	845	992	152	101	621	137.6	466.7
August-----	95.2	98.3	133	850	983	153	102	618	137.0	465.4
September-----	96.5	97.1	130	837	975	153	101	600	139.7	465.4
October-----	97.0	97.2	129	839	966	154	101	587	139.8	467.5
November-----	96.7	96.9	127	838	967	154	103	594	140.1	466.0
December-----	96.8	97.3	127	841	975	154	103	604	139.6	462.9
1928										
January-----	96.3	96.9	129	851	982	153	102	607	138.7	463.5
February-----	96.4	96.8	128	848	985	152	102	609	137.9	461.3
March-----	96.0	97.7	129	848	978	153	103	623	138.5	463.9
April-----	97.4	98.3	131	847	984	154	103	624	139.5	464.4
May-----	98.6	97.7	131	844	987	155	103	632	141.2	464.9
June-----	97.6	97.1	133	844	986	155	103	626	141.3	461.7
July-----	98.3	96.2	133	841	979	155	103	624	141.6	453.1
August-----	98.9	95.4	133	831	996	154	103	617	141.5	456.2
September-----	100.1	95.5	131	830	986	151	101	620	139.9	457.8
October-----	97.8	95.4	129	835	971	150	101	617	140.1	463.3
November-----	96.7	94.9	128	847	957	151	101	626	140.3	465.6
December-----	96.7	94.5	127	855	955	151	101	624	139.9	464.4
1929										
January-----	97.2	94.5	128	867	953	151	100	630	138.9	461.2
February-----	96.7	95.7	130	865	950	159	100	638	139.3	462.7
March-----	97.5	96.1	133	869	964	154	100	640	139.6	461.1
April-----	96.8	94.1	134	862	963	150	99	627	137.1	455.0
May-----	95.8	92.4	135	851	948	148	98	623	135.5	451.6
June-----	96.4	92.6	134	848	917	146	98	610	135.1	-----

INDEX NUMBERS OF WHOLESALE PRICES IN THE UNITED STATES AND IN CERTAIN FOREIGN COUNTRIES—Continued

Country	Netherlands	Norway	Spain	Sweden	Switzerland	United Kingdom	Australia	New Zealand	South Africa	Japan	China	India
Computing agency	Central Bureau of Statistics	Central Bureau of Statistics	Institute of Geography and Statistics	Chamber of Commerce	Federal Labor Department	Board of Trade	Bureau of Census and Statistics	Census and Statistics Office (revised)	Office of Census and Statistics	Bank of Japan, Tokyo	Bureau of Markets, Treasury Department, Shanghai	Labor Office, Bombay
Base period	1913	1913	1913	1913	July, 1914	1913	July, 1914	1913	1913	1913	1913	July, 1914
Commodities	^a 48	95	74	160	120	150	92	180	187	56	^b 117	42
Year and month												
1923	151	232	172	163	-----	158.9	170	158	127	199	156.4	181
1924	156	268	183	162	-----	166.2	165	165	129	206	153.9	182
1925	155	253	188	161	-----	159.1	162	161	128	202	159.4	163
1926	145	198	181	149	145	148.1	161	154	123	179	164.1	149
1927	148	167	172	146	142	141.4	159	146	124	170	170.4	147
1928	149	161	168	148	145	140.3	157	147	121	171	160.7	146
1923												
January	157	223	170	163	-----	157.0	163	-----	131	184	152.7	181
April	156	229	174	168	-----	162.0	167	-----	126	196	157.7	180
July	145	231	170	162	-----	156.5	180	-----	124	192	155.4	178
October	148	235	171	161	-----	158.1	171	-----	125	212	156.1	181
1924												
January	156	251	178	161	-----	165.4	174	-----	131	211	155.8	188
April	154	263	184	161	-----	164.7	166	-----	126	207	153.7	184
July	151	265	182	157	-----	162.6	163	-----	125	195	151.5	184
October	161	273	186	167	-----	170.0	163	-----	133	213	152.8	181
1925												
January	160	279	191	169	-----	171.1	163	166	130	214	159.9	173
February	158	281	192	169	-----	168.9	162	162	-----	210	159.2	173
March	155	279	193	168	-----	166.3	160	162	-----	204	160.3	171
April	151	273	190	163	-----	161.9	158	162	130	202	159.3	165
May	151	262	191	162	-----	158.6	159	162	-----	199	157.8	164
June	153	260	187	161	-----	157.2	162	162	-----	200	157.3	160
July	155	254	188	161	-----	156.9	162	161	127	198	162.8	158
August	155	249	184	159	-----	156.2	162	161	-----	200	160.3	160
September	155	237	185	157	-----	155.1	162	160	-----	201	160.2	157
October	154	223	187	154	-----	153.9	163	162	124	200	159.0	158
November	154	220	186	155	-----	152.7	165	161	-----	198	158.4	160
December	155	220	187	156	-----	152.1	160	160	-----	194	158.1	154
1926												
January	153	214	186	153	153	151.3	161	159	124	192	164.0	154
February	149	211	186	152	147	148.8	160	159	-----	188	163.0	151
March	145	205	183	149	146	144.4	163	157	-----	184	164.4	150
April	143	199	179	150	145	143.6	168	156	120	181	162.8	151
May	143	197	179	151	143	144.9	167	156	-----	177	159.7	151
June	144	194	177	150	143	146.4	163	155	-----	177	155.8	150
July	141	192	178	148	145	148.7	162	156	122	179	156.9	149
August	139	193	180	147	142	149.1	162	154	-----	177	160.5	148
September	140	193	178	146	142	150.9	158	153	-----	176	164.2	149
October	143	198	179	148	144	152.1	154	153	127	174	171.1	147
November	147	199	185	148	142	152.4	155	151	-----	171	174.4	146
December	147	184	186	150	142	146.1	155	153	-----	170	172.0	146

^a 52 commodities in 1920; 53 commodities from August, 1920, to December, 1921.^b 147 items.

INDEX NUMBERS OF WHOLESALE PRICES IN THE UNITED STATES AND IN CERTAIN FOREIGN COUNTRIES—Continued

Country	Netherlands	Norway	Spain	Sweden	Switzerland	United Kingdom	Australia	New Zealand	South Africa	Japan	China	India
Computing agency	Central Bureau of Statistics	Central Bureau of Statistics	Institute of Geography and Statistics	Chamber of Commerce	Federal Labor Department	Board of Trade	Bureau of Census and Statistics	Census and Statistics Office (revised)	Office of Census and Statistics	Bank of Japan, Tokyo	Bureau of Markets, Treasury Department, Shanghai	Labor Office, Bombay
Base period	1913	1913	1913	1913	July, 1914	1913	July, 1914	1913	1913	1913	1913	July, 1914
Commodities	^a 48	95	74	100	120	150	92	180	187	56	^a 117	42
Year and month												
1927												
January	145	174	184	146	141	143.6	154	151	128	170	172.8	146
February	146	172	180	146	141	142.6	153	147		171	172.0	148
March	144	167	179	145	141	140.6	150	147		171	174.7	146
April	143	164	177	143	140	139.8	151	147	126	170	173.1	145
May	145	162	172	145	141	141.1	152	145		171	171.3	146
June	149	166	171	146	140	141.8	155	146		172	169.3	147
July	151	165	168	146	140	141.1	161	146	120	170	171.0	147
August	149	167	168	146	142	140.9	165	146		167	170.8	148
September	150	167	169	148	144	142.1	170	146		169	171.8	148
October	150	165	169	147	145	141.4	173	146	122	170	168.7	146
November	151	166	168	148	147	141.1	166	147		168	165.7	144
December	151	166	169	148	146	140.4	162	148		168	163.5	143
1928												
January	153	164	166	148	145	141.1	163	150	123	169	163.1	141
February	150	163	166	147	144	140.3	160	147		169	164.3	142
March	152	164	165	149	145	140.8	160	147		169	163.4	140
April	153	162	166	151	146	142.9	162	147	121	170	163.1	142
May	152	162	164	152	145	143.6	159	148		171	164.5	145
June	153	161	164	151	145	142.6	158	148		169	160.0	149
July	148	162	164	150	144	141.1	157	148	119	169	159.2	147
August	144	162	166	149	144	139.3	154	147		170	157.2	146
September	145	158	168	146	144	137.6	153	148		174	156.2	148
October	146	157	174	145	145	137.9	152	149	120	174	158.8	150
November	148	157	176	145	145	137.9	152	150		173	159.2	149
December	148	157	175	145	144	138.3	154	149		174	159.9	145
1929												
January	146	154	171	144	143	138.3	157	147	120	172	160.1	148
February	146	155	173	145	143	138.4	156	146		171	162.4	150
March	147	155	174	144	142	140.1	157	146		171	164.2	147
April	144	154	174	141	140	138.8	158	146	117	170	161.2	144
May	142	152		140	139	135.8	156	147		169	161.7	141
June	141	151		139	139	135.6	158	147		168	162.6	

^a 52 commodities in 1920; 53 commodities from August, 1920, to December, 1921.^b 147 items.

Index Numbers of Wholesale Prices in July, 1929

CONTINUED upward movement of wholesale prices is shown for July by data collected in leading markets by the Bureau of Labor Statistics of the United States Department of Labor. The bureau's weighted index number stands at 98 for July compared with 96.4 for June, an increase of 1½ per cent. There was an increase of 2¼ per cent over May, when the index number was 95.8, the lowest level reached during the present year. Compared with July, 1928, with

an index number of 98.3, a decrease of one-third of 1 per cent is shown. Based on these figures the purchasing power of the dollar in July, 1929, was 102 compared with 100 in the year 1926.

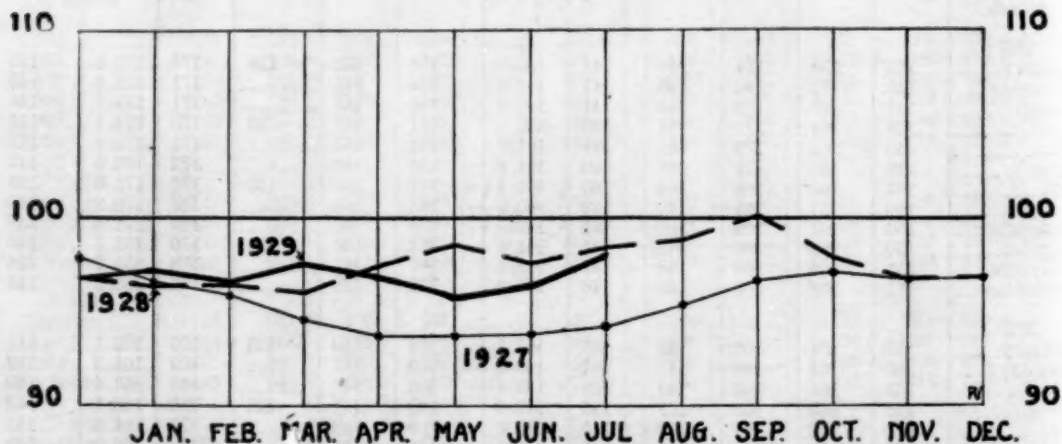
Farm products showed the greatest price increases from June to July, with pronounced advances for all grains, especially wheat, and for eggs and potatoes. Prices of calves, beef steers, hogs, lambs, and flaxseed were also upward, while only a few articles, including cows, hay, and onions showed a decrease. The net increase for the group as a whole was more than 4 per cent.

Foods also showed a decided increase in average price, with wheat flour, corn meal, and certain meat products advancing considerably. Butter, cheese, and milk showed a decrease in average price. The net gain in the group as a whole was slightly less than 4 per cent.

Hides and skins and leather continued their upward movement, resulting in a net increase of over 1 per cent for the hides and leather products group. Boots and shoes and other leather products showed very little or no change.

TREND OF WHOLESALE PRICES

[1926=100]



The greatest increase for any group of commodities took place in cattle feed, with an advance of 13 per cent in July over June.

Textile products and fuel and lighting materials recorded the greatest decreases among the groups as a whole. Minor changes took place in metals and metal products and building materials, with no change shown for the group of chemicals and drugs.

Raw materials, semimanufactured articles, and finished products all averaged higher than in June, as did also nonagricultural commodities taken as a whole.

Of the 550 commodities or price series for which comparable information for June and July was collected, increases were shown in 130 instances and decreases in 118 instances. In 302 instances no change in price was reported.

Comparing prices in July with those of a year ago, as measured by changes in the index numbers, it is seen that metals and metal products were considerably higher while building materials were somewhat higher. Smaller increases took place during the year period in farm products, foods, house-furnishing goods, and articles classed as

miscellaneous. Hides and leather products decreased over 12 per cent from July, 1928, to July, 1929, with smaller decreases shown for textile products, chemicals and drugs, and fuel and lighting materials.

INDEX NUMBERS OF WHOLESALE PRICES BY GROUPS AND SUBGROUPS OF COMMODITIES

[1926=100.0]

Groups and subgroups	July, 1928	June, 1929	July, 1929	Purchasing power of the dollar, July, 1929
All commodities.....	98.3	96.4	98.0	102.0
Farm products.....	107.1	103.3	107.6	92.9
Grains.....	111.6	91.0	102.2	97.8
Livestock and poultry.....	112.1	111.0	114.9	87.0
Other farm products.....	102.1	102.3	104.5	95.7
Foods.....	102.3	98.9	102.8	97.3
Butter, cheese, and milk.....	103.3	105.5	103.4	96.7
Meats.....	112.7	111.5	116.7	85.7
Other foods.....	95.5	88.5	94.0	106.4
Hides and leather products.....	124.2	108.0	109.2	91.6
Hides and skins.....	155.8	110.9	114.5	87.3
Leather.....	128.5	110.3	112.1	89.2
Boots and shoes.....	110.8	106.1	106.1	94.3
Other leather products.....	108.6	105.5	105.8	94.5
Textile products.....	96.8	93.3	92.8	107.8
Cotton goods.....	102.0	99.1	98.7	101.3
Silk and rayon.....	81.7	79.5	78.6	127.2
Woolen and worsted goods.....	101.5	97.8	97.2	102.9
Other textile products.....	89.6	80.3	79.7	125.5
Fuel and lighting.....	82.8	83.3	82.0	122.0
Anthracite.....	90.5	88.1	89.1	112.2
Bituminous coal.....	91.4	89.6	89.9	111.2
Coke.....	84.6	84.7	84.7	118.1
Manufactured gas.....	94.8	94.0	(1)	-----
Petroleum products.....	73.5	76.6	73.3	136.4
Metals and metal products.....	98.6	105.1	105.0	95.2
Iron and steel.....	94.0	98.2	97.9	102.1
Nonferrous metals.....	92.6	104.8	105.1	95.1
Agricultural implements.....	98.8	98.3	98.3	101.7
Automobiles.....	105.1	112.2	112.2	89.1
Other metal products.....	96.9	98.5	98.5	101.5
Building materials.....	94.4	96.4	96.7	103.4
Lumber.....	89.5	94.2	94.0	106.4
Brick.....	93.2	89.1	89.1	112.2
Cement.....	96.5	94.6	94.6	105.7
Structural steel.....	94.5	99.6	99.6	100.4
Paint materials.....	87.6	86.5	90.7	110.3
Other building materials.....	104.1	106.1	105.7	94.6
Chemicals and drugs.....	94.5	93.4	93.4	107.1
Chemicals.....	100.2	98.6	99.1	100.9
Drugs and pharmaceuticals.....	70.4	69.8	69.8	143.3
Fertilizer materials.....	93.0	92.6	90.7	110.3
Fertilizers.....	97.5	96.7	97.3	102.8
Housefurnishing goods.....	96.9	96.6	97.2	102.9
Furniture.....	97.4	95.0	96.7	103.4
Furnishings.....	96.6	97.7	97.5	102.6
Miscellaneous.....	80.8	80.4	81.3	123.0
Cattle feed.....	132.4	106.2	120.5	83.0
Paper and pulp.....	89.2	88.2	88.2	113.4
Rubber.....	39.8	42.7	43.9	227.8
Automobile tires.....	61.6	55.3	55.3	180.8
Other miscellaneous.....	98.4	109.7	109.0	91.7
Raw materials.....	99.5	96.6	99.1	100.9
Semimanufactured articles.....	97.8	94.4	96.0	104.2
Finished products.....	97.8	96.7	97.8	102.2
Nonagricultural commodities.....	95.9	94.6	95.5	104.7

¹ Data not yet available.

COST OF LIVING

Cost of Living of Federal Employees in Five Cities

Part 2: Food Consumption

THE Bureau of Labor Statistics in 1928, in cooperation with the Personnel Classification Board, made a study of the cost of living of 506 families of employees of the United States Government in five cities, limited to families having a Government salary of not more than \$2,500. A partial report of this study was furnished to the Personnel Classification Board and such report was published as a part of the board's report on "Wage and personnel survey" (H. Doc. No. 602, 70th Cong. 2d sess.). The substance of that section of the report containing the cost-of-living figures was published in the August, 1929, Labor Review (p. 41).

The mass of data collected has been analyzed still further, and an article on the food consumption of these 506 families is here given. In the ordinary family, as is known to every housewife and as indicated in the August Review, food is the most important element entering into family expenditure. A segregation has been made of the cost of 24 of the most important food items, and the quantity consumed has been obtained for 12 of these items. The detail figures pertaining to food are given in Tables 1 and 2. Table 1 shows the average consumption and the cost for each of the five cities. Because of the comparatively small number of families no attempt has been made to subdivide the figures for each city by income group. As data were obtained from a total of 506 families in the five cities, however, it was deemed practicable to consolidate the reports from the five cities and then subdivide the items of food by income groups, as shown in Table 2.

In the article in the August Review the families were classified according to the amount of the Government salary. In these food tables the classification is made according to the total family income instead of the Government salary alone, as the total income rather than the Government salary is the governing factor in making expenditures. The number of families that had income from other sources is shown in the aforementioned article.

For each city in Table 1 a prefatory statement is given as to the number of families included, which is followed by the average number of persons in such families reduced to equivalent full-year food consuming persons; for example, a person in the family for one-half of the year is counted as one-half of a person. The number of equivalent adult males in the family for a year and the average income per family are also stated.

As the persons in different families varied as to sex and age, it was deemed advisable to reduce all persons to a common denominator, which is "the equivalent adult male." The figures given below have been used in other reports of this bureau. In the compilation of the figures in these tables it is assumed that the value of food consumed varies in the proportion here stated.

	Units
Adult male, 15 years or over.....	100
Adult female, 15 years or over.....	90
Children, 11 to 14 years, inclusive.....	90
Children, 7 to 10 years, inclusive.....	75

Children, 4 to 6 years, inclusive.....	Units 40
Children, 3 years or under.....	15

In computing the number of persons and the equivalent adult males, not only the family proper but also boarders, servants, and others living in the family, have been included.

Food produced at the home, such as garden vegetables, eggs, etc., have been counted as a part of the family income and also of the family expenditure, such food being given its usual market value.

Table 1 shows the average quantity of each of 12 items consumed by the family and also per equivalent adult male. Similar averages are shown for the cost of each of the 24 items. In the first section of the table the averages are computed on all the families canvassed in the city, whether or not they all used the article. The second section presents figures for only those families that consumed the item of food named, giving first the number of families having such an expenditure, and next what per cent such families constitute of all families canvassed. The average quantity consumed and the average cost of the item as computed on only such families as had an expenditure for the item also are given. It will be seen that the items in Table 1 for which the quantity is not given are of such a character that the quantity is very difficult, if not impossible, to determine.

TABLE 1.—AVERAGE QUANTITY AND COST OF SPECIFIED ARTICLES OF FOOD CONSUMED PER FAMILY AND PER EQUIVALENT ADULT MALE IN ONE YEAR, BY CITIES

Baltimore, Md.

[Total number of families, 96; average persons¹ in family, 4.52; equivalent adult males in family, 3.62; average income per family, \$2,336.87]

Item	All families				Families using article			
	Average quantity consumed per—		Average cost per—		Number	Per cent of all families	Average for these families	
	Family	Equivalent adult male	Family	Equivalent adult male			Quantity	Cost
Meat, fresh, including cooked.....pounds	337.0	93.15	\$116.75	\$32.27	96	100.0	337.0	\$116.75
Meat, salt, including cooked.....do	115.7	31.98	42.49	11.74	94	97.9	118.2	43.39
Poultry, fresh.....do	64.0	17.68	25.39	7.02	92	95.8	66.8	26.49
Meats and poultry, canned.....(2)	(2)	(2)	.55	.15	8	8.3	(2)	6.57
Fish and other sea food, fresh or canned.....(2)	(2)	(2)	22.38	6.18	93	96.9	(2)	23.10
Eggs.....dozen	98.8	27.31	41.89	11.58	96	100.0	98.8	41.89
Milk, fresh.....quarts	478.9	132.36	67.91	18.77	96	100.0	478.9	67.91
Cream, fresh.....pints	4.5	1.25	1.97	.55	28	29.2	15.6	6.76
Milk, condensed and evaporated.....(2)	(2)	(2)	7.25	2.00	52	54.2	(2)	13.38
Butter and substitutes.....pounds	86.0	23.76	44.83	12.39	96	100.0	86.0	44.83
Sugar.....do	247.2	68.32	15.03	4.15	96	100.0	247.2	15.03
Lard and substitutes.....do	63.4	17.51	11.56	3.19	94	97.9	64.7	11.80
Flour and meal.....do	222.9	61.61	11.49	3.18	96	100.0	222.9	11.49
Bread and rolls.....do	614.0	169.69	55.12	15.23	93	96.9	633.8	56.90
Breakfast foods ¹(2)	(2)	(2)	10.49	2.90	92	95.8	(2)	10.94
Potatoes.....pounds	656.2	181.37	19.46	5.38	96	100.0	656.2	19.46
Other vegetables, fresh.....(2)	(2)	(2)	51.20	14.15	96	100.0	(2)	51.20
Other vegetables, dried and canned.....(2)	(2)	(2)	17.38	4.80	93	96.9	(2)	17.94
Fruits, fresh.....(2)	(2)	(2)	35.55	9.82	96	100.0	(2)	35.55
Fruits dried and canned.....(2)	(2)	(2)	9.22	2.55	84	87.5	(2)	10.54
Coffee, tea, cocoa, etc.....(2)	(2)	(2)	25.09	6.93	95	99.0	(2)	25.35
Ice.....(2)	(2)	(2)	18.64	5.15	77	80.2	(2)	23.24
Other food ²(2)	(2)	(2)	33.31	9.22	96	100.0	(2)	33.31
Lunches and meals bought.....(2)	(2)	(2)	31.74	8.77	63	65.6	(2)	48.37
Total food.....			716.69	198.07				

¹ Reduced to equivalent full-year food consuming persons.

² Quantity not available.

³ Includes cornflakes, hominy grits, rolled oats, etc.

⁴ Includes ice cream, cornstarch, cheese, crackers, cakes, pies, macaroni, rice, tapioca, candy, jellies, peanut butter, gelatin, canned soup, pickles, baking powder, nuts, etc.

TABLE 1.—AVERAGE QUANTITY AND COST OF SPECIFIED ARTICLES OF FOOD CONSUMED PER FAMILY AND PER EQUIVALENT ADULT MALE IN ONE YEAR, BY CITIES—Continued

Boston, Mass.[Total number of families, 102; average persons¹ in family, 4.48; equivalent adult males in family, 3.64; average income per family, \$2,411.31]

Item	All families				Families using article			
	Average quantity consumed per—		Average cost per—		Number	Per cent of all families	Average for these families	
	Family	Equivalent adult male	Family	Equivalent adult male			Quantity	Cost
Meat, fresh, including cooked..... pounds..	319.1	87.77	\$124.97	\$34.38	102	100.0	319.1	\$124.97
Meat, salt, including cooked..... do.....	100.3	27.59	35.86	9.86	100	98.0	102.3	36.58
Poultry, fresh..... do.....	79.0	21.74	31.76	8.73	98	96.1	82.3	33.05
Meats and poultry, canned..... (2)	(2)	(2)	.25	.07	6	5.9	(2)	4.33
Fish and other sea food, fresh or canned..... (2)	(2)	(2)	27.40	7.54	100	98.0	(2)	27.94
Eggs..... dozen.....	102.4	28.18	57.96	15.94	102	100.0	102.4	57.96
Milk, fresh..... quarts.....	615.7	169.35	91.42	25.15	102	100.0	615.7	91.42
Cream, fresh..... pints.....	10.2	2.80	4.23	1.16	46	45.1	22.5	9.39
Milk, condensed and evaporated..... (2)	(2)	(2)	6.62	1.82	59	57.8	(2)	11.45
Butter and substitutes..... pounds.....	104.8	28.83	55.86	15.37	102	100.0	104.8	55.86
Sugar..... do.....	250.9	69.02	17.41	4.79	102	100.0	250.9	17.41
Lard and substitutes..... do.....	48.0	13.21	9.16	2.52	101	99.0	48.5	9.25
Flour and meal..... do.....	295.3	81.22	16.72	4.60	102	100.0	295.3	16.72
Bread and rolls..... do.....	441.7	121.49	36.89	10.15	98	96.1	459.7	38.39
Breakfast foods ² (2)	(2)	(2)	10.98	3.02	101	99.0	(2)	11.09
Potatoes..... pounds.....	665.8	183.13	20.03	5.51	102	100.0	665.8	20.03
Other vegetables, fresh..... (2)	(2)	(2)	54.19	14.91	102	100.0	(2)	54.19
Other vegetables, dried and canned..... (2)	(2)	(2)	20.24	5.57	102	100.0	(2)	20.24
Fruits, fresh..... (2)	(2)	(2)	41.32	11.37	102	100.0	(2)	41.32
Fruits, dried and canned..... (2)	(2)	(2)	13.62	3.75	96	94.1	(2)	14.47
Coffee, tea, cocoa, etc..... (2)	(2)	(2)	26.96	7.42	102	100.0	(2)	26.96
Ice..... (2)	(2)	(2)	19.15	5.27	94	92.2	(2)	20.78
Other foods ³ (2)	(2)	(2)	34.96	9.59	102	100.0	(2)	34.96
Lunches and meals bought..... (2)	(2)	(2)	54.52	15.00	67	65.7	(2)	83.00
Total food.....			812.48	223.49				

New York City[Total number of families, 101; average persons¹ in family, 4.66; equivalent adult males in family, 3.69; average income per family, \$2,483.36]

Meat, fresh, including cooked..... pounds..	352.0	95.48	\$142.62	\$38.68	101	100.0	352.0	\$142.62
Meat, salt, including cooked..... do.....	48.1	13.03	18.97	5.14	66	65.3	73.5	29.03
Poultry, fresh..... do.....	131.7	35.73	49.72	13.48	95	94.1	140.1	52.86
Meats and poultry, canned..... (2)	(2)	(2)	.21	.06	4	4.0	(2)	5.23
Fish and other sea food, fresh or canned..... (2)	(2)	(2)	28.97	7.86	89	88.1	(2)	32.87
Eggs..... dozen.....	95.4	25.86	50.89	13.80	101	100.0	95.4	50.89
Milk, fresh..... quarts.....	689.9	187.09	105.70	28.67	101	100.0	689.9	105.70
Cream, fresh..... pints.....	6.1	1.66	2.71	.73	22	21.8	28.1	12.43
Milk, condensed and evaporated..... (2)	(2)	(2)	7.68	2.08	53	52.5	(2)	14.63
Butter and substitutes..... pounds.....	103.5	28.07	57.44	15.58	101	100.0	103.5	57.44
Sugar..... do.....	220.2	59.71	13.67	3.71	101	100.0	220.2	13.67
Lard and substitutes..... do.....	35.9	9.73	8.02	2.17	86	85.1	42.2	9.42
Flour and meal..... do.....	126.2	34.22	7.46	2.02	100	99.0	127.4	7.53
Bread and rolls..... do.....	677.3	183.69	65.41	17.74	100	99.0	684.1	66.06
Breakfast foods ² (2)	(2)	(2)	10.92	2.96	92	91.1	(2)	11.99
Potatoes..... pounds.....	572.7	155.32	19.48	5.28	101	100.0	572.7	19.48
Other vegetables, fresh..... (2)	(2)	(2)	64.13	17.39	101	100.0	(2)	64.13
Other vegetables, dried and canned..... (2)	(2)	(2)	21.50	5.83	91	90.1	(2)	23.86
Fruits, fresh..... (2)	(2)	(2)	48.80	13.23	101	100.0	(2)	48.80
Fruits, dried and canned..... (2)	(2)	(2)	16.34	4.43	92	91.1	(2)	17.94
Coffee, tea, cocoa, etc..... (2)	(2)	(2)	29.17	7.91	101	100.0	(2)	29.17
Ice..... (2)	(2)	(2)	14.38	3.90	52	51.5	(2)	27.94
Other food ³ (2)	(2)	(2)	63.23	17.18	101	100.0	(2)	63.23
Lunches and meals bought..... (2)	(2)	(2)	79.46	21.55	82	81.2	(2)	97.87
Total food.....			926.88	251.38				

¹ Reduced to equivalent full-year food consuming persons.² Quantity not available.³ Includes cornflakes, hominy grits, rolled oats, etc.⁴ Includes ice cream, cornstarch, cheese, crackers, cakes, pies, macaroni, rice, tapioca, candy, jellies, peanut butter, gelatin, canned soup, pickles, baking powder, nuts, etc.

TABLE 1.—AVERAGE QUANTITY AND COST OF SPECIFIED ARTICLES OF FOOD CONSUMED PER FAMILY AND PER EQUIVALENT ADULT MALE IN ONE YEAR, BY CITIES—Continued

Chicago, Ill.

[Total number of families, 102; average persons¹ in family, 4.62; equivalent adult males in family, 3.77; average income per family, \$2,745.87]

Item	All families				Families using article			
	Average quantity consumed per—		Average cost per—		Number	Per cent of all families	Average for these families	
	Family	Equivalent adult male	Family	Equivalent adult male			Quantity	Cost
Meat, fresh, including cooked.....pounds..	348.8	92.63	\$118.15	\$31.38	102	100.0	348.8	\$118.15
Meat, salt, including cooked.....do.....	90.5	24.04	32.99	8.76	98	96.1	94.2	34.34
Poultry, fresh.....do.....	56.0	14.87	21.53	5.72	97	95.1	58.9	22.64
Meats and poultry, canned.....do.....	(2)	(2)	.29	.08	6	5.9	(2)	4.97
Fish and other sea food, fresh or canned.....do.....	(2)	(2)	18.11	4.81	99	97.1	(2)	18.66
Eggs.....dozen.....	89.6	23.79	40.97	10.88	102	100.0	89.6	40.97
Milk, fresh.....quarts.....	565.1	150.08	78.21	20.77	101	99.0	570.7	78.98
Cream, fresh.....pints.....	30.3	8.03	9.81	2.61	58	56.9	53.2	17.26
Milk, condensed and evaporated.....do.....	(2)	(2)	6.30	1.67	53	52.0	(2)	12.12
Butter and substitutes.....pounds.....	108.3	28.76	53.89	14.31	102	100.0	108.3	53.89
Sugar.....do.....	217.0	57.64	14.65	3.89	102	100.0	217.0	14.65
Lard and substitutes.....do.....	47.0	12.49	8.76	2.33	94	92.2	51.0	9.51
Flour and meal.....do.....	258.4	68.62	13.26	3.52	101	99.0	260.9	13.39
Bread and rolls.....do.....	447.2	118.75	44.12	11.72	101	99.0	451.6	44.56
Breakfast foods ³do.....	(2)	(2)	12.47	3.31	100	98.0	(2)	12.72
Potatoes.....pounds.....	670.1	177.95	19.19	5.10	102	100.0	670.1	19.19
Other vegetables, fresh.....do.....	(2)	(2)	55.87	14.84	102	100.0	(2)	55.87
Other vegetables, dried and canned.....do.....	(2)	(2)	25.93	6.89	96	94.1	(2)	27.55
Fruits, fresh.....do.....	(2)	(2)	49.56	13.16	102	100.0	(2)	49.56
Fruits, dried and canned.....do.....	(2)	(2)	18.72	4.97	96	94.1	(2)	19.89
Coffee, tea, cocoa, etc.....do.....	(2)	(2)	30.52	8.11	102	100.0	(2)	30.52
Ice.....do.....	(2)	(2)	19.88	5.28	91	89.2	(2)	22.28
Other foods ⁴do.....	(2)	(2)	49.30	13.07	102	100.0	(2)	49.30
Lunches and meals bought.....do.....	(2)	(2)	71.48	18.98	77	75.5	(2)	94.69
Total food.....			813.96	216.16				

New Orleans, La.

[Total number of families, 105; average persons¹ in family, 4.53; equivalent adult males in family, 3.67; average income per family, \$2,193.98]

Meat, fresh, including cooked.....pounds..	280.0	76.22	\$90.73	\$24.70	104	99.0	282.7	\$91.61
Meat, salt, including cooked.....do.....	83.5	22.74	29.72	8.09	102	97.1	86.0	30.59
Poultry, fresh.....do.....	88.3	24.04	30.90	8.41	100	95.2	92.7	32.44
Meats and poultry, canned.....do.....	(2)	(2)	.81	.22	14	13.3	(2)	6.09
Fish and other sea food, fresh or canned.....do.....	(2)	(2)	24.29	6.61	100	95.2	(2)	25.51
Eggs.....dozen.....	86.1	23.43	33.79	9.20	104	99.0	86.9	34.11
Milk, fresh.....quarts.....	424.3	115.51	59.13	16.10	89	84.8	500.6	69.76
Cream, fresh.....pints.....	1.9	.53	.66	.18	7	6.7	29.0	9.90
Milk, condensed and evaporated.....do.....	(2)	(2)	21.10	5.74	86	81.9	(2)	25.76
Butter and substitutes.....pounds.....	77.3	21.03	39.02	10.62	105	100.0	77.3	39.02
Sugar.....do.....	256.0	69.69	16.44	4.47	105	100.0	256.0	16.44
Lard and substitutes.....do.....	90.4	24.62	14.85	4.04	105	100.0	90.4	14.85
Flour and meal.....do.....	145.1	39.51	9.69	2.64	105	100.0	145.1	9.69
Bread and rolls.....do.....	658.5	179.26	56.93	15.50	105	100.0	658.5	56.93
Breakfast foods ³do.....	(2)	(2)	10.95	2.98	95	90.5	(2)	12.10
Potatoes.....pounds.....	443.4	120.71	16.12	4.39	105	100.0	443.4	16.12
Other vegetables, fresh.....do.....	(2)	(2)	48.49	13.20	105	100.0	(2)	48.49
Other vegetables, dried and canned.....do.....	(2)	(2)	21.74	5.92	99	94.3	(2)	23.06
Fruits, fresh.....do.....	(2)	(2)	46.48	12.65	105	100.0	(2)	46.48
Fruits, dried and canned.....do.....	(2)	(2)	12.00	3.27	89	84.8	(2)	14.15
Coffee, tea, cocoa, etc.....do.....	(2)	(2)	32.28	8.79	105	100.0	(2)	32.28
Ice.....do.....	(2)	(2)	29.77	8.10	104	99.0	(2)	30.05
Other foods ⁴do.....	(2)	(2)	60.62	16.50	105	100.0	(2)	60.62
Lunches and meals bought.....do.....	(2)	(2)	73.19	19.92	93	88.6	(2)	82.63
Total food.....			779.70	212.24				

¹ Reduced to equivalent full-year food consuming persons.² Quantity not available.³ Includes corn flakes, hominy grits, rolled oats, etc.⁴ Includes ice cream, cornstarch, cheese, crackers, cakes, pies, macaroni, rice, tapioca, candy, jellies, peanut butter, gelatin, canned soup, pickles, baking powder, nuts, etc.

Table 2 is composed of two parts, the first showing by family income group the number of families, the average number of persons in the families, the equivalent adult males for such families, and the average income per family, and the second showing for each income group the average quantity consumed per family and per equivalent adult male, as in Table 1.

TABLE 2.—AVERAGE QUANTITY AND COST OF SPECIFIED ARTICLES OF FOOD CONSUMED PER FAMILY AND PER EQUIVALENT ADULT MALE IN ONE YEAR, BY INCOME GROUP

Family income group	Number of families	Average persons ¹ in family	Equivalent adult males in family	Average income per family
Under \$1,500.....	47	4.12	3.02	\$1,324.05
\$1,500 and under \$1,800.....	58	4.09	3.13	1,666.18
\$1,800 and under \$2,100.....	83	4.20	3.30	1,953.20
\$2,100 and under \$2,400.....	70	4.48	3.60	2,225.33
\$2,400 and under \$2,700.....	91	4.66	3.73	2,530.30
\$2,700 and under \$3,000.....	52	4.75	3.93	2,835.38
\$3,000 and under \$3,300.....	43	5.15	4.39	3,134.43
\$3,300 and under \$3,600.....	30	4.87	4.06	3,469.24
\$3,600 and over.....	32	5.51	4.89	4,320.20
All incomes.....	506	4.56	3.68	2,433.91

Article, and income group	All families				Families using article			
	Average quantity consumed per—		Average cost per—		Number	Per cent of all families	Average for these families	
	Family	Equivalent adult male	Family	Equivalent adult male			Quantity	Cost
Meat, fresh, including cooked:	Lbs.	Lbs.					Lbs.	
Under \$1,500.....	214.9	71.09	\$69.21	\$22.90	46	97.9	219.5	\$70.72
\$1,500 and under \$1,800.....	255.7	81.76	83.35	26.65	58	100.0	255.7	83.35
\$1,800 and under \$2,100.....	284.9	86.43	99.13	30.07	83	100.0	284.9	99.13
\$2,100 and under \$2,400.....	312.0	86.56	111.16	30.84	70	100.0	312.0	111.16
\$2,400 and under \$2,700.....	351.0	94.02	130.42	34.93	91	100.0	351.0	130.42
\$2,700 and under \$3,000.....	350.8	89.30	132.29	33.68	52	100.0	350.8	132.29
\$3,000 and under \$3,300.....	427.1	97.31	161.38	36.77	43	100.0	427.1	161.38
\$3,300 and under \$3,600.....	350.0	86.24	136.86	33.72	30	100.0	350.0	136.86
\$3,600 and over.....	499.1	102.01	189.03	38.64	32	100.0	499.1	189.03
All incomes.....	326.9	88.92	118.46	32.22	505	99.8	327.6	118.69
Meat, salt, including cooked:								
Under \$1,500.....	70.2	23.22	22.37	7.40	40	85.1	82.5	26.28
\$1,500 and under \$1,800.....	77.9	24.91	24.63	7.88	52	89.7	86.9	27.48
\$1,800 and under \$2,100.....	79.4	24.08	29.59	8.98	76	91.6	86.7	32.32
\$2,100 and under \$2,400.....	89.7	24.90	33.73	9.36	64	91.4	98.2	36.89
\$2,400 and under \$2,700.....	87.0	23.30	32.52	8.71	79	86.8	100.2	37.46
\$2,700 and under \$3,000.....	100.7	25.62	35.67	9.08	49	94.2	106.8	37.86
\$3,000 and under \$3,300.....	90.3	20.57	33.48	7.63	41	95.3	94.7	35.11
\$3,300 and under \$3,600.....	96.3	23.72	39.99	9.85	27	90.0	107.0	44.43
\$3,600 and over.....	112.3	22.95	43.33	8.86	32	100.0	112.3	43.33
All incomes.....	87.4	23.76	31.89	8.67	460	90.9	96.1	35.08
Poultry, fresh:								
Under \$1,500.....	55.1	18.22	19.98	6.61	41	87.2	63.1	22.90
\$1,500 and under \$1,800.....	66.7	21.33	24.80	7.93	53	91.4	73.0	27.14
\$1,800 and under \$2,100.....	76.7	23.27	28.94	8.78	79	95.2	80.6	30.40
\$2,100 and under \$2,400.....	81.1	22.50	30.53	8.47	67	95.7	84.7	31.90
\$2,400 and under \$2,700.....	88.7	23.77	34.64	9.28	90	98.9	89.7	35.02
\$2,700 and under \$3,000.....	85.6	21.78	32.01	8.15	51	98.1	87.3	32.64
\$3,000 and under \$3,300.....	87.7	19.98	33.74	7.69	41	95.3	92.0	35.39
\$3,300 and under \$3,600.....	130.2	32.09	50.43	12.43	29	96.7	134.7	52.17
\$3,600 and over.....	118.4	24.21	45.06	9.21	31	96.9	122.3	46.51
All incomes.....	84.0	22.84	31.89	8.67	482	95.3	88.2	33.48

¹ Reduced to equivalent full-year food consuming persons.

TABLE 2.—AVERAGE QUANTITY AND COST OF SPECIFIED ARTICLES OF FOOD CONSUMED PER FAMILY AND PER EQUIVALENT ADULT MALE IN ONE YEAR, BY INCOME GROUP—Continued

Article, and income group	All families				Families using article			
	Average quantity consumed per—		Average cost per—		Number	Per cent of all families	Average for these families	
	Family	Equivalent adult male	Family	Equivalent adult male			Quantity	Cost
Meats and poultry, canned:								
Under \$1,500.....			\$0.45	\$0.15	4	8.5		\$5.30
\$1,500 and under \$1,800.....			.51	.16	6	10.3		4.95
\$1,800 and under \$2,100.....			.32	.10	4	4.8		6.63
\$2,100 and under \$2,400.....			.47	.13	8	11.4		4.16
\$2,400 and under \$2,700.....			.40	.11	7	7.7		5.14
\$2,700 and under \$3,000.....			.48	.12	2	3.8		12.48
\$3,000 and under \$3,300.....			.30	.07	5	11.6		2.58
\$3,300 and under \$3,600.....			.67	.16	1	3.3		20.00
\$3,600 and over.....			.31	.06	1	3.1		10.00
All incomes.....			.42	.12	38	7.5		5.64
Fish and other sea food, fresh or canned:								
Under \$1,500.....			20.42	6.76	45	95.7		21.33
\$1,500 and under \$1,800.....			18.73	6.00	53	91.4		20.55
\$1,800 and under \$2,100.....			21.04	6.38	76	91.6		22.98
\$2,100 and under \$2,400.....			23.18	6.43	67	95.7		24.22
\$2,400 and under \$2,700.....			26.12	7.00	89	97.8		26.71
\$2,700 and under \$3,000.....			26.50	6.74	50	96.2		27.56
\$3,000 and under \$3,300.....			27.09	6.17	40	93.0		29.12
\$3,300 and under \$3,600.....			29.95	7.38	30	100.0		29.95
\$3,600 and over.....			32.20	6.58	31	96.9		33.24
All incomes.....			24.24	6.59	481	95.1		25.50
Eggs:								
	Doz.	Doz.					Doz.	
Under \$1,500.....	73.2	24.21	31.74	10.50	46	97.9	74.8	32.43
\$1,500 and under \$1,800.....	78.3	25.05	34.86	11.15	58	100.0	78.3	34.86
\$1,800 and under \$2,100.....	85.5	25.93	39.77	12.06	83	100.0	85.5	39.77
\$2,100 and under \$2,400.....	87.9	24.38	42.74	11.86	70	100.0	87.9	42.74
\$2,400 and under \$2,700.....	100.3	26.86	49.68	13.31	91	100.0	100.3	49.68
\$2,700 and under \$3,000.....	102.3	26.03	48.87	12.44	52	100.0	102.3	48.87
\$3,000 and under \$3,300.....	118.7	27.05	55.21	12.58	43	100.0	118.7	55.21
\$3,300 and under \$3,600.....	108.6	26.76	56.33	13.88	30	100.0	108.6	56.33
\$3,600 and over.....	115.9	23.69	58.33	11.92	32	100.0	115.9	58.33
All incomes.....	94.4	25.66	45.06	12.26	505	99.8	94.5	45.15
Milk, fresh:								
	Qts.	Qts.					Qts.	
Under \$1,500.....	277.0	91.64	39.22	12.97	42	89.4	310.0	43.89
\$1,500 and under \$1,800.....	425.7	136.11	63.23	20.22	56	96.6	440.9	65.49
\$1,800 and under \$2,100.....	515.9	156.49	76.89	23.32	78	94.0	548.9	81.82
\$2,100 and under \$2,400.....	539.9	149.78	78.79	21.86	67	95.7	564.0	82.31
\$2,400 and under \$2,700.....	654.2	175.22	93.90	25.15	91	100.0	654.2	93.90
\$2,700 and under \$3,000.....	610.4	155.39	86.51	22.02	51	98.1	622.4	88.20
\$3,000 and under \$3,300.....	701.3	159.80	101.91	23.22	43	100.0	701.3	101.91
\$3,300 and under \$3,600.....	624.3	153.82	90.96	22.41	30	100.0	624.3	90.96
\$3,600 and over.....	693.1	141.66	98.25	20.08	31	96.9	715.4	101.42
All incomes.....	554.6	150.85	80.45	21.88	489	96.6	573.9	83.24
Cream, fresh:								
	Pts.	Pts.					Pts.	
Under \$1,500.....	1.0	.34	.38	.12	8	17.0	6.1	2.21
\$1,500 and under \$1,800.....	1.9	.62	.68	.22	6	10.3	18.7	6.54
\$1,800 and under \$2,100.....	9.7	2.95	3.31	1.00	26	31.3	31.1	10.57
\$2,100 and under \$2,400.....	5.7	1.59	2.02	.56	17	24.3	23.5	8.30
\$2,400 and under \$2,700.....	13.0	3.49	4.78	1.28	36	39.6	32.9	12.08
\$2,700 and under \$3,000.....	16.3	4.16	6.31	1.61	19	36.5	44.7	17.27
\$3,000 and under \$3,300.....	16.0	3.66	5.54	1.26	16	37.2	43.1	14.89
\$3,300 and under \$3,600.....	24.5	6.04	9.52	2.35	17	56.7	43.2	16.81
\$3,600 and over.....	17.2	3.52	6.40	1.31	16	50.0	34.4	12.80
All incomes.....	10.6	2.89	3.88	1.06	161	31.8	33.4	12.20

TABLE 2.—AVERAGE QUANTITY AND COST OF SPECIFIED ARTICLES OF FOOD CONSUMED PER FAMILY AND PER EQUIVALENT ADULT MALE IN ONE YEAR, BY INCOME GROUP—Continued

Article, and income group	All families				Families using article			
	Average quantity consumed per—		Average cost per—		Number	Per cent of all families	Average for these families	
	Family	Equivalent adult male	Family	Equivalent adult male			Quantity	Cost
Milk, condensed and evaporated:								
Under \$1,500			\$10. 23	\$3. 38	33	70. 2		\$14. 57
\$1,500 and under \$1,800			12. 16	3. 89	43	74. 1		16. 41
\$1,800 and under \$2,100			10. 47	3. 18	44	53. 0		19. 76
\$2,100 and under \$2,400			9. 42	2. 61	46	65. 7		14. 33
\$2,400 and under \$2,700			7. 60	2. 03	49	53. 8		14. 11
\$2,700 and under \$3,000			10. 76	2. 74	28	53. 8		19. 99
\$3,000 and under \$3,300			9. 78	2. 23	24	55. 8		17. 53
\$3,300 and under \$3,600			8. 35	2. 06	19	63. 3		13. 18
\$3,600 and over			11. 49	2. 35	17	53. 1		21. 62
All incomes			9. 89	2. 69	303	59. 9		16. 52
Butter and substitutes:								
	Lbs.	Lbs.					Lbs.	
Under \$1,500	62. 0	20. 50	31. 34	10. 37	47	100. 0	62. 0	31. 34
\$1,500 and under \$1,800	70. 2	22. 46	34. 72	11. 10	58	100. 0	70. 2	34. 72
\$1,800 and under \$2,100	84. 8	25. 74	43. 41	13. 17	83	100. 0	84. 8	43. 41
\$2,100 and under \$2,400	83. 9	23. 28	43. 44	12. 05	70	100. 0	83. 9	43. 44
\$2,400 and under \$2,700	106. 9	28. 63	57. 50	15. 40	91	100. 0	106. 9	57. 50
\$2,700 and under \$3,000	109. 3	27. 83	56. 84	14. 47	52	100. 0	109. 3	56. 84
\$3,000 and under \$3,300	116. 1	26. 46	61. 13	13. 93	43	100. 0	116. 1	61. 13
\$3,300 and under \$3,600	111. 3	27. 42	61. 45	15. 14	30	100. 0	111. 3	61. 45
\$3,600 and over	153. 4	31. 35	81. 45	16. 65	32	100. 0	153. 4	81. 45
All incomes	96. 0	26. 10	50. 19	13. 65	506	100. 0	96. 0	50. 19
Sugar:								
Under \$1,500	213. 2	70. 55	13. 66	4. 52	47	100. 0	213. 2	13. 66
\$1,500 and under \$1,800	212. 6	67. 98	13. 44	4. 30	58	100. 0	212. 6	13. 44
\$1,800 and under \$2,100	222. 8	67. 58	14. 47	4. 39	83	100. 0	222. 8	14. 47
\$2,100 and under \$2,400	234. 3	65. 00	15. 35	4. 26	70	100. 0	234. 3	15. 35
\$2,400 and under \$2,700	249. 1	66. 72	16. 05	4. 30	91	100. 0	249. 1	16. 05
\$2,700 and under \$3,000	246. 2	62. 66	15. 83	4. 03	52	100. 0	246. 2	15. 83
\$3,000 and under \$3,300	277. 3	63. 18	18. 10	4. 13	43	100. 0	277. 3	18. 10
\$3,300 and under \$3,600	222. 4	54. 80	14. 58	3. 59	30	100. 0	222. 4	14. 58
\$3,600 and over	290. 0	59. 29	19. 45	3. 98	32	100. 0	290. 0	19. 45
All incomes	238. 3	64. 82	15. 45	4. 20	506	100. 0	238. 3	15. 45
Lard and substitutes:								
Under \$1,500	70. 3	23. 27	11. 51	3. 81	45	95. 7	73. 5	12. 03
\$1,500 and under \$1,800	68. 5	21. 90	12. 04	3. 85	56	96. 6	70. 9	12. 47
\$1,800 and under \$2,100	50. 7	15. 38	9. 32	2. 83	79	95. 2	53. 3	9. 79
\$2,100 and under \$2,400	59. 5	16. 50	11. 02	3. 06	68	97. 1	61. 2	11. 34
\$2,400 and under \$2,700	51. 6	13. 81	9. 87	2. 64	83	91. 2	56. 5	10. 82
\$2,700 and under \$3,000	57. 5	14. 63	10. 26	2. 61	49	94. 2	61. 0	10. 89
\$3,000 and under \$3,300	58. 9	13. 43	11. 25	2. 56	42	97. 7	60. 3	11. 52
\$3,300 and under \$3,600	48. 5	11. 94	9. 39	2. 31	28	93. 3	51. 9	10. 07
\$3,600 and over	49. 3	10. 97	10. 15	2. 07	30	93. 8	52. 6	10. 82
All incomes	57. 1	15. 53	10. 49	2. 85	480	94. 9	60. 2	11. 06
Flour and meal:								
Under \$1,500	206. 3	68. 25	11. 40	3. 77	47	100. 0	206. 3	11. 40
\$1,500 and under \$1,800	195. 1	62. 37	10. 55	3. 37	57	98. 3	198. 5	10. 74
\$1,800 and under \$2,100	169. 8	51. 50	9. 59	2. 91	82	98. 8	171. 9	9. 71
\$2,100 and under \$2,400	215. 2	59. 69	12. 45	3. 45	70	100. 0	215. 2	12. 45
\$2,400 and under \$2,700	212. 7	56. 97	12. 05	3. 23	91	100. 0	212. 7	12. 05
\$2,700 and under \$3,000	224. 2	57. 08	12. 30	3. 13	52	100. 0	224. 2	12. 30
\$3,000 and under \$3,300	241. 1	54. 94	13. 55	3. 09	43	100. 0	241. 1	13. 55
\$3,300 and under \$3,600	155. 8	38. 40	9. 75	2. 40	30	100. 0	155. 8	9. 75
\$3,600 and over	301. 1	61. 55	15. 78	3. 23	32	100. 0	301. 1	15. 78
All incomes	209. 2	56. 90	11. 72	3. 19	504	99. 6	210. 0	11. 77

TABLE 2.—AVERAGE QUANTITY AND COST OF SPECIFIED ARTICLES OF FOOD CONSUMED PER FAMILY AND PER EQUIVALENT ADULT MALE IN ONE YEAR, BY INCOME GROUP—Continued

Article, and income group	All families				Families using article			
	Average quantity consumed per—		Average cost per—		Number	Per cent of all families	Average for these families	
	Family	Equivalent adult male	Family	Equivalent adult male			Quantity	Cost
Bread and rolls:								
Under \$1,500.....	487.4	161.26	\$42.08	\$13.92	45	95.7	509.1	\$43.95
\$1,500 and under \$1,800.....	525.8	168.15	47.72	15.26	58	100.0	525.8	47.72
\$1,800 and under \$2,100.....	486.7	147.62	44.16	13.39	81	97.6	498.7	45.25
\$2,100 and under \$2,400.....	518.4	143.83	45.08	12.51	68	97.1	533.7	46.40
\$2,400 and under \$2,700.....	584.7	156.63	53.84	14.42	91	100.0	584.7	53.84
\$2,700 and under \$3,000.....	631.2	160.66	59.64	15.18	51	98.1	643.5	60.81
\$3,000 and under \$3,300.....	756.7	172.43	66.73	15.21	41	95.3	793.7	69.99
\$3,300 and under \$3,600.....	650.4	160.26	62.51	15.40	30	100.0	650.4	62.51
\$3,600 and over.....	593.3	121.27	57.10	11.67	32	100.0	593.3	57.10
All incomes.....	567.5	154.35	51.66	14.05	497	98.2	577.8	52.59
Breakfast foods: ¹								
Under \$1,500.....			9.96	3.30	41	87.2		11.42
\$1,500 and under \$1,800.....			8.10	2.59	54	93.1		8.70
\$1,800 and under \$2,100.....			10.35	3.14	79	95.2		10.87
\$2,100 and under \$2,400.....			11.67	3.24	67	95.7		12.19
\$2,400 and under \$2,700.....			11.75	3.15	88	96.7		12.15
\$2,700 and under \$3,000.....			12.53	3.19	51	98.1		12.78
\$3,000 and under \$3,300.....			12.18	2.77	41	95.3		12.77
\$3,300 and under \$3,600.....			12.70	3.13	30	100.0		12.70
\$3,600 and over.....			12.90	2.64	29	90.6		14.23
All incomes.....			11.17	3.04	480	94.9		11.77
Potatoes:								
	Lbs.	Lbs.					Lbs.	
Under \$1,500.....	488.7	161.67	15.09	4.99	47	100.0	488.7	15.09
\$1,500 and under \$1,800.....	538.7	172.25	17.81	5.70	58	100.0	538.7	17.81
\$1,800 and under \$2,100.....	531.9	161.36	17.10	5.19	83	100.0	531.9	17.10
\$2,100 and under \$2,400.....	560.5	155.51	17.81	4.94	70	100.0	560.5	17.81
\$2,400 and under \$2,700.....	638.7	171.08	19.60	5.25	91	100.0	638.7	19.60
\$2,700 and under \$3,000.....	567.8	144.54	17.68	4.50	52	100.0	567.8	17.68
\$3,000 and under \$3,300.....	779.6	177.64	23.40	5.33	43	100.0	779.6	23.40
\$3,300 and under \$3,600.....	634.6	156.36	20.97	5.17	30	100.0	634.6	20.97
\$3,600 and over.....	808.0	165.15	24.44	5.00	32	100.0	808.0	24.44
All incomes.....	600.1	163.22	18.83	5.12	506	100.0	600.1	18.83
Other vegetables, fresh:								
Under \$1,500.....			31.93	10.57	47	100.0		31.93
\$1,500 and under \$1,800.....			41.55	13.29	58	100.0		41.56
\$1,800 and under \$2,100.....			47.74	14.48	83	100.0		47.74
\$2,100 and under \$2,400.....			51.86	14.39	70	100.0		51.86
\$2,400 and under \$2,700.....			57.14	15.31	91	100.0		57.14
\$2,700 and under \$3,000.....			64.74	16.48	52	100.0		64.74
\$3,000 and under \$3,300.....			64.82	14.77	43	100.0		64.82
\$3,300 and under \$3,600.....			65.32	16.09	30	100.0		65.32
\$3,600 and over.....			90.38	18.47	32	100.0		90.38
All incomes.....			54.76	14.89	506	100.0		54.76
Other vegetables, dried and canned:								
Under \$1,500.....			13.72	4.54	43	91.5		15.00
\$1,500 and under \$1,800.....			19.37	6.19	58	100.0		19.37
\$1,800 and under \$2,100.....			19.54	5.93	79	95.2		20.53
\$2,100 and under \$2,400.....			21.21	5.88	68	97.1		21.83
\$2,400 and under \$2,700.....			24.53	6.57	88	96.7		25.37
\$2,700 and under \$3,000.....			21.24	5.41	49	94.2		22.54
\$3,000 and under \$3,300.....			23.72	5.40	41	95.3		24.88
\$3,300 and under \$3,600.....			18.05	4.45	24	80.0		22.56
\$3,600 and over.....			33.10	6.76	31	96.9		34.16
All incomes.....			21.41	5.82	481	95.1		22.52

¹ Includes corn flakes, hominy grits, rolled oats, etc.

TABLE 2.—AVERAGE QUANTITY AND COST OF SPECIFIED ARTICLES OF FOOD CONSUMED PER FAMILY AND PER EQUIVALENT ADULT MALE IN ONE YEAR, BY INCOME GROUP—Continued

Article, and income group	All families				Families using article			
	Average quantity consumed per—		Average cost per—		Number	Per cent of all families	Average for these families	
	Family	Equivalent adult male	Family	Equivalent adult male			Quantity	Cost
Fruits, fresh:								
Under \$1,500.....			\$21.39	\$7.08	47	100.0		\$21.39
\$1,500 and under \$1,800.....			29.53	9.44	58	100.0		29.53
\$1,800 and under \$2,100.....			37.40	11.34	83	100.0		37.40
\$2,100 and under \$2,400.....			42.97	11.92	70	100.0		42.97
\$2,400 and under \$2,700.....			50.01	13.40	91	100.0		50.01
\$2,700 and under \$3,000.....			55.94	14.24	52	100.0		55.94
\$3,000 and under \$3,300.....			54.11	12.33	43	100.0		54.11
\$3,300 and under \$3,600.....			59.29	14.61	30	100.0		59.29
\$3,600 and over.....			65.45	13.37	32	100.0		65.45
All incomes.....			44.45	12.09	506	100.0		44.45
Fruits, dried and canned:								
Under \$1,500.....			8.18	2.71	40	85.1		9.61
\$1,500 and under \$1,800.....			8.96	2.87	51	87.9		10.19
\$1,800 and under \$2,100.....			11.22	3.40	74	89.2		12.59
\$2,100 and under \$2,400.....			13.63	3.78	64	91.4		14.91
\$2,400 and under \$2,700.....			16.64	4.46	84	92.3		18.03
\$2,700 and under \$3,000.....			14.94	3.80	47	90.4		16.54
\$3,000 and under \$3,300.....			15.73	3.58	41	95.3		16.50
\$3,300 and under \$3,600.....			12.67	3.12	24	80.0		15.84
\$3,600 and over.....			29.85	6.10	32	100.0		29.85
All incomes.....			14.02	3.81	457	90.3		15.52
Coffee, tea, cocoa, etc.:								
Under \$1,500.....			19.29	6.38	47	100.0		19.29
\$1,500 and under \$1,800.....			25.16	8.04	57	98.3		25.10
\$1,800 and under \$2,100.....			28.64	8.69	83	100.0		28.64
\$2,100 and under \$2,400.....			27.01	7.49	70	100.0		27.01
\$2,400 and under \$2,700.....			30.10	8.06	91	100.0		30.10
\$2,700 and under \$3,000.....			32.61	8.30	52	100.0		32.61
\$3,000 and under \$3,300.....			32.54	7.41	43	100.0		32.54
\$3,300 and under \$3,600.....			32.05	7.90	30	100.0		32.05
\$3,600 and over.....			36.81	7.52	32	100.0		36.81
All incomes.....			28.87	7.85	505	99.8		28.93
Ice:								
Under \$1,500.....			14.87	4.92	39	83.0		17.93
\$1,500 and under \$1,800.....			17.12	5.47	45	77.6		22.07
\$1,800 and under \$2,100.....			17.70	5.37	67	80.7		21.92
\$2,100 and under \$2,400.....			21.79	6.04	61	87.1		25.00
\$2,400 and under \$2,700.....			19.76	5.29	72	79.1		24.97
\$2,700 and under \$3,000.....			25.08	6.39	47	90.4		27.75
\$3,000 and under \$3,300.....			23.96	5.46	34	79.1		30.30
\$3,300 and under \$3,600.....			21.04	5.18	24	80.0		26.30
\$3,600 and over.....			28.09	5.74	29	90.6		31.00
All incomes.....			20.45	5.56	418	82.6		24.76
Other food: ¹								
Under \$1,500.....			33.57	11.10	47	100.0		33.57
\$1,500 and under \$1,800.....			43.08	13.77	58	100.0		43.08
\$1,800 and under \$2,100.....			39.87	12.09	83	100.0		39.87
\$2,100 and under \$2,400.....			44.91	12.46	70	100.0		44.91
\$2,400 and under \$2,700.....			54.50	14.60	91	100.0		54.50
\$2,700 and under \$3,000.....			59.56	15.16	52	100.0		59.56
\$3,000 and under \$3,300.....			50.63	11.54	43	100.0		50.63
\$3,300 and under \$3,600.....			61.63	15.04	30	100.0		61.63
\$3,600 and over.....			61.08	12.49	32	100.0		61.08
All incomes.....			48.51	13.19	506	100.0		48.51

¹ Includes ice cream, corn starch, cheese, crackers, cakes, pies, macaroni, rice, tapioca, candy, jellies, peanut butter, gelatin, canned soup, pickles, baking powder, nuts, etc.

TABLE 2.—AVERAGE QUANTITY AND COST OF SPECIFIED ARTICLES OF FOOD CONSUMED PER FAMILY AND PER EQUIVALENT ADULT MALE IN ONE YEAR, BY INCOME GROUP—Continued

Article, and income group	All families				Families using article			
	Average quantity consumed per—		Average cost per—		Number	Per cent of all families	Average for these families	
	Family	Equivalent adult male	Family	Equivalent adult male			Quantity	Cost
Lunches and meals bought:								
Under \$1,500.....			\$30. 57	\$10. 11	27	57. 4	-----	\$53. 21
\$1,500 and under \$1,800.....			35. 77	11. 44	41	70. 7	-----	50. 60
\$1,800 and under \$2,100.....			48. 25	14. 64	62	74. 7	-----	64. 60
\$2,100 and under \$2,400.....			57. 55	15. 97	51	72. 9	-----	78. 98
\$2,400 and under \$2,700.....			70. 27	18. 82	75	82. 4	-----	85. 25
\$2,700 and under \$3,000.....			66. 61	16. 96	41	78. 8	-----	84. 48
\$3,000 and under \$3,300.....			61. 05	13. 91	31	72. 1	-----	84. 69
\$3,300 and under \$3,600.....			101. 31	24. 96	27	90. 0	-----	112. 57
\$3,600 and over.....			141. 99	29. 02	27	84. 4	-----	168. 29
All incomes.....			62. 47	16. 99	382	75. 5	-----	82. 75
Total food:								
Under \$1,500.....			522. 57	172. 89				
\$1,500 and under \$1,800.....			627. 93	200. 79				
\$1,800 and under \$2,100.....			708. 21	214. 83				
\$2,100 and under \$2,400.....			769. 78	213. 56				
\$2,400 and under \$2,700.....			883. 65	236. 69				
\$2,700 and under \$3,000.....			905. 23	230. 43				
\$3,000 and under \$3,300.....			961. 35	219. 06				
\$3,300 and under \$3,600.....			985. 16	242. 75				
\$3,600 and over.....			1, 192. 43	243. 73				
All incomes.....			810. 64	220. 43				

For ready reference Table 3 gives, for each of the 5 cities and for the 5 cities combined, the average quantity of the 12 specified articles of food consumed per family and the average cost per family for all 24 of the articles of food. These averages are computed on all families and persons canvassed, regardless of whether all families or persons consumed each article.

TABLE 3.—AVERAGE CONSUMPTION AND COST OF SPECIFIED ARTICLES OF FOOD PER FAMILY

Article	Balti- more ¹	Bos- ton ²	New York ³	Chi- cago ⁴	New Or- leans ⁵	Five cities ⁶ com- bined
	Consumption					
Meat, fresh, including cooked.....pounds.....	337. 0	319. 1	352. 0	348. 8	280. 0	326. 9
Meat, salt, including cooked.....do.....	115. 7	100. 3	48. 1	90. 5	83. 5	87. 4
Poultry, fresh.....do.....	64. 0	79. 0	131. 7	56. 0	83. 3	84. 0
Eggs.....dozen.....	98. 8	102. 4	95. 4	89. 6	86. 1	94. 4
Milk, fresh.....quarts.....	478. 9	615. 7	689. 9	565. 1	424. 3	554. 6
Cream, fresh.....pints.....	4. 5	10. 2	6. 1	30. 3	1. 9	10. 6
Butter and substitutes.....pounds.....	86. 0	104. 8	103. 5	108. 3	77. 3	96. 0
Sugar.....do.....	247. 2	250. 9	220. 2	217. 0	256. 0	238. 3
Lard and substitutes.....do.....	63. 4	48. 0	35. 9	47. 0	90. 4	57. 1
Flour and meal.....do.....	222. 9	295. 3	126. 2	258. 4	145. 1	209. 2
Bread and rolls.....do.....	614. 0	441. 7	677. 3	447. 2	658. 5	567. 5
Potatoes.....do.....	656. 2	665. 8	572. 7	670. 1	443. 4	600. 1

¹ Average family=4.52 persons, or 3.62 equivalent adult males.² Average family=4.48 persons, or 3.64 equivalent adult males.³ Average family=4.66 persons, or 3.69 equivalent adult males.⁴ Average family=4.62 persons, or 3.77 equivalent adult males.⁵ Average family=4.53 persons, or 3.67 equivalent adult males.⁶ Average family=4.56 persons, or 3.68 equivalent adult males.

TABLE 3.—AVERAGE CONSUMPTION AND COST OF SPECIFIED ARTICLES OF FOOD PER FAMILY—Continued

Article	Balti- more	Boston	New York	Chi- cago	New Orleans	Five cities com- bined
<i>Cost</i>						
Meat, fresh, including cooked.....	\$116.75	\$124.97	\$142.62	\$118.15	\$90.73	\$118.46
Meat, salt, including cooked.....	42.49	35.86	18.97	32.99	29.72	31.89
Poultry, fresh.....	25.39	31.76	49.72	21.53	30.90	31.89
Meats and poultry, canned.....	.55	.25	.21	.29	.81	.42
Fish and other sea food, fresh or canned.....	22.38	27.40	28.97	18.11	24.29	24.24
Eggs.....	41.89	57.96	50.89	40.97	33.79	45.06
Milk, fresh.....	67.91	91.42	105.70	78.21	59.13	80.45
Cream, fresh.....	1.97	4.23	2.71	9.81	.66	3.88
Milk, condensed and evaporated.....	7.25	6.62	7.68	6.30	21.10	9.89
Butter and substitutes.....	44.83	55.86	57.44	53.89	39.02	50.19
Sugar.....	15.03	17.41	13.67	14.65	16.44	15.45
Lard and substitutes.....	11.56	9.16	8.02	8.76	14.85	10.49
Flour and meal.....	11.49	16.72	7.46	13.26	9.69	11.72
Bread and rolls.....	55.12	36.89	65.41	44.12	56.93	51.66
Breakfast foods ⁷	10.49	10.98	10.92	12.47	10.95	11.17
Potatoes.....	19.46	20.03	19.48	19.19	16.12	18.83
Other vegetables, fresh.....	51.20	54.19	64.13	55.87	48.49	54.76
Other vegetables, dried and canned.....	17.38	20.24	21.50	25.93	21.74	21.41
Fruits, fresh.....	35.55	41.32	48.80	49.56	46.48	44.45
Fruits, dried and canned.....	9.22	13.62	16.34	18.72	12.00	14.02
Coffee, tea, cocoa, etc.....	25.09	26.96	29.17	30.52	32.28	28.87
Ice.....	18.64	19.15	14.38	19.88	29.77	20.45
Other food ⁸	33.31	34.96	63.23	49.30	60.62	48.51
Lunches and meals bought.....	31.74	54.52	79.46	71.48	73.19	62.47
Total food.....	716.69	812.48	926.88	813.96	779.70	810.64

⁷Includes corn flakes, hominy grits, rolled oats, etc.⁸Includes ice cream, cornstarch, cheese, crackers, cakes, pies, macaroni, rice, tapioca, candy, jellies, peanut butter, gelatin, canned soup, pickles, baking powder, nuts, etc.

Table 4 gives similar data to that in Table 3 per equivalent adult male, and, as in that table, the averages are computed on all families and persons canvassed, regardless of whether all families or persons consumed such article.

TABLE 4.—AVERAGE CONSUMPTION AND COST OF SPECIFIED ARTICLES OF FOOD PER EQUIVALENT ADULT MALE

Article	Balti- more	Boston	New York	Chi- cago	New Orleans	Five cities com- bined
<i>Consumption</i>						
Meat, fresh, including cooked.....pounds.	93.15	87.77	95.48	92.63	76.22	88.92
Meat, salt, including cooked.....do.	31.98	27.59	13.03	24.04	22.74	23.76
Poultry, fresh.....do.	17.68	21.74	35.73	14.87	24.04	22.84
Eggs.....dozen	27.31	28.18	25.86	23.79	23.43	25.66
Milk, fresh.....quarts	132.36	169.35	187.09	150.08	115.51	150.85
Cream, fresh.....pints	1.25	2.80	1.66	8.03	.53	2.89
Butter and substitutes.....pounds	23.76	28.83	28.07	28.76	21.03	26.10
Sugar.....do.	68.32	69.02	59.71	57.64	69.69	64.82
Lard and substitutes.....do.	17.51	13.21	9.73	12.49	24.62	15.53
Flour and meal.....do.	61.61	81.22	34.22	68.02	39.51	56.90
Bread and rolls.....do.	169.69	121.49	183.69	118.75	179.26	154.35
Potatoes.....do.	181.37	183.13	155.32	177.95	120.71	163.22

TABLE 4.—AVERAGE CONSUMPTION AND COST OF SPECIFIED ARTICLES OF FOOD PER EQUIVALENT ADULT MALE—Continued

Article	Balti- more	Boston	New York	Chi- cago	New Orleans	Five cities com- bined
	Cost					
Meat, fresh, including cooked	\$32.27	\$34.38	\$38.68	\$31.38	\$24.70	\$32.22
Meat, salt, including cooked	11.74	9.86	5.14	8.76	8.09	8.67
Poultry, fresh	7.02	8.73	13.48	5.72	8.41	8.67
Meats and poultry, canned	.15	.07	.06	.08	.22	.12
Fish and other sea food, fresh or canned	6.18	7.54	7.86	4.81	6.61	6.59
Eggs	11.58	15.94	13.80	10.88	9.20	12.26
Milk, fresh	18.77	25.15	28.67	20.77	16.10	21.88
Cream, fresh	.55	1.16	.73	2.61	.18	1.06
Milk, condensed and evaporated	2.00	1.82	2.08	1.67	5.74	2.69
Butter and substitutes	12.39	15.37	15.58	14.31	10.62	13.65
Sugar	4.15	4.79	3.71	3.89	4.47	4.20
Lard and substitutes	3.19	2.52	2.17	2.33	4.04	2.85
Flour and meal	3.18	4.60	2.02	3.52	2.64	3.19
Bread and rolls	15.23	10.15	17.74	11.72	15.50	14.05
Breakfast foods ¹	2.90	3.02	2.96	3.31	2.98	3.04
Potatoes	5.38	5.51	5.28	5.10	4.39	5.12
Other vegetables, fresh	14.15	14.91	17.39	14.84	13.20	14.89
Other vegetables, dried and canned	4.80	5.57	5.83	6.89	5.92	5.82
Fruits, fresh	9.82	11.37	13.23	13.16	12.65	12.00
Fruits, dried and canned	2.55	3.75	4.43	4.97	3.27	3.81
Coffee, tea, cocoa, etc.	6.93	7.42	7.91	8.11	8.79	7.85
Ice	5.15	5.27	3.90	5.28	8.10	5.56
Other food ²	9.22	9.59	17.18	13.07	16.50	13.19
Lunches and meals bought	8.77	15.00	21.55	18.98	19.92	16.99
Total food	198.07	223.49	251.38	216.16	212.24	220.48

¹ Includes corn flakes, hominy grits, rolled oats, etc.² Includes ice cream, cornstarch, cheese, crackers, cakes, pies, macaroni, rice, tapioca, candy, jellies, peanut butter, gelatin, canned soup, pickles, baking powder, nuts, etc.

Considering the 506 families as a whole, it is of interest to determine next the consumption per person and per equivalent adult male by the day as well as by the full year. Such figures appear in Table 5. It will be seen that in these families each person consumed on an average one-fifth (0.20) of a pound of fresh meat a day, one-twentieth (0.05) of a pound of salt meat, one-third (0.33) of a quart of milk, nearly one-seventh (0.14) of a pound of sugar, nearly one-half (0.47) of a pound of flour, meal, bread and rolls, etc.

TABLE 5.—DAILY AND YEARLY CONSUMPTION OF FOOD, PER PERSON AND EQUIVALENT ADULT MALE

Article	Unit	Consumption of food				
		Yearly		Daily		
		Per person	Per equivalent adult male	Per family	Per person	Per equivalent adult male
Meat, fresh, including cooked	Pounds	71.7	88.92	0.90	0.20	0.24
Meat, salt, including cooked	do.	19.2	23.76	.24	.05	.07
Poultry, fresh	do.	18.4	22.84	.23	.05	.06
Eggs	Dozen	20.7	25.66	.26	.06	.07
Milk, fresh	Quarts	121.6	150.85	1.52	.33	.41
Cream, fresh	Pints	2.3	2.89	.03	.01	.01
Butter and substitutes	Pounds	21.0	26.10	.26	.06	.07
Sugar	do.	52.3	64.82	.65	.14	.18
Lard and substitutes	do.	12.5	15.53	.16	.03	.04
Flour and meal	do.	45.9	56.90	.57	.13	.16
Bread and rolls	do.	124.5	154.35	1.55	.34	.42
Potatoes	do.	131.6	163.22	1.64	.36	.45

What Women Wore in the Nineties

THE striking change in the quantity and cost of women's clothes during the past third of a century is indicated in the following article, taken from the Decatur (Ill.) Herald of July 7, 1929:

When Women Wore More and Dressed on Much Less

"BACK in the gay nineties when Decatur was much younger, when a Packard was a piano and a Peerless was an ice-cream freezer, a woman could dress on \$40 a year if she were careful and if she did her own sewing.

"Those were the days when there was more of the feminine figure to dress, too. 'Plumpers' in front and bustles behind gave women something for which to buy materials. Both were wire frames bound with satin and calculated to enhance the figure.

"In addition to buying materials sufficient in amount to cover this augmented form, women wore huge sleeves, skirts that showed not so much as an inch of ankle, and layer upon layer of clothing.

"First came a suit of knitted wear, cotton or wool according to the season; then a flannel or knitted wool petticoat; a layer or two of muslin; a petticoat of finer lawn and lace; and finally the dress. For outer wear there were little bonnets; neckwear made of feathers instead of fur; a voluminous cape or coat; a tiny muff, and a veil.

"To dress on \$40 a year, the budget looked something like this:

35 yards cotton cloth at 8 cents.....	\$2. 68
3 pairs black cotton stockings.....	1. 00
3 pairs black merino stockings.....	1. 00
3 jersey undervests.....	. 75
3 sets winter flannels, to last two years, one year's wear.....	1. 00
Summer shoes.....	1. 25
Winter boots.....	3. 50
Slippers at \$1, one year's wear.....	. 50
Flannel skirt, 4 yards flannel at 20 cents a yard.....	. 80
"Mother Hubbard" wrapper, 10 yards at 6 cents.....	. 60
2 pairs rubbers at 40 cents each.....	. 80
Sateen dress, one year's wear.....	1. 25
Belt.....	. 50
Mohair dress, 10 yards at 30 cents.....	3. 00
Black sailor hat.....	1. 25
Lace veil.....	. 05
Silk gloves.....	. 39
White dress, 10 yards at 6 cents.....	. 60
Tea gown material, 10 yards at 8 cents.....	. 80
9 yards tricot at 59 cents a yard.....	5. 31
Plush cape.....	5. 00
Material for bonnet.....	. 90
Gloves.....	1. 00
Neckwear.....	. 50
Total.....	34. 63

"The remaining \$5.37 went for such luxuries as an extra pair of gloves, an extra dress, or a new hat for some special occasion."

Cost of Living in Bulgaria, March, 1929¹

THE Bulgarian wholesale commodity index (based on 1913) and the retail index (based on the period 1900-1910) for the month of March, 1929, show that there was an increase in the cost of living for March, 1929, as compared with the previous month, the wholesale index rising from 2945 in February to 2974 in March, 1929, and the retail index from 3976 to 4014. This was due in the main to the rise of food prices. There was also an increase in the cost of living during the year, the wholesale index rising from 2839 in March, 1928, to 2974 in March, 1929, and the retail index from 3831 to 4014.

¹ Report of Mr. Samuel Green, American Vice Consul in Charge, Sofia, May 28, 1929.

IMMIGRATION AND EMIGRATION

Statistics of Immigration for June, 1929

By J. J. KUNNA, CHIEF STATISTICIAN UNITED STATES BUREAU OF IMMIGRATION

THE statistics for June, 1929, show 22,490 immigrant and 17,133 nonimmigrant aliens admitted to the United States, a total of 39,623. Alien departures this month numbered 25,703, including 4,881 emigrant and 20,822 nonemigrant. During the same month 28,119 American citizens—15,723 male and 12,396 female—returned to the United States, and 42,846—21,480 male and 21,366 female—departed for foreign countries.

During the fiscal year ended June 30, 1929, a total of 479,327 aliens entered the country, of whom nearly three-fifths, or 279,678, were classified as immigrants, coming initially for permanent residence, while 199,649 were nonimmigrants. Of the latter class 100,879, or 50.5 per cent, were returning residents, 64,310, or 32.2 per cent, were visitors intending to stay here less than a year; 27,776, or 13.9 per cent, were persons passing through the country on their way elsewhere; and the remaining 6,684, or 3.4 per cent, were Government officials, their families, attendants, servants, or employees; aliens to carry on trade under existing treaty; and other miscellaneous classes. Of the immigrant aliens admitted, 146,918, or 52.5 per cent, were of the class charged to the quota; 97,014, or 34.7 per cent, entered the country as natives of nonquota countries; and 29,248, or 10.5 per cent, were wives and unmarried children of American citizens. The remaining 6,498 immigrants, or 2.3 per cent, were of the miscellaneous classes under the act of 1924, including ministers, professors, husbands of citizens, women who were citizens, etc.

The peak month of the past year for arriving immigrants was October, when 29,917 were admitted, and February, with 17,254, was the low month. The high-water period for emigrant aliens departed was during December, 8,264 leaving this month, while 2,449 left in March, the low month of the same fiscal year for departing emigrants.

The 279,768 immigrant aliens admitted during the fiscal year just closed was a drop of 27,577, or 9 per cent, from the 307,255 recorded for the previous fiscal year, and the lowest number of immigrants since 1919 when 141,132 entered the country. The decrease for the past year was almost entirely confined to a few countries. The number of immigrants admitted from the Irish Free State dropped from 24,544 in 1928 to 17,672 in 1929, or 28 per cent; from Canada it dropped from 73,154 to 64,440, or 12 per cent; and from Mexico the decrease was from 59,016 to 40,154, or 32 per cent. Immigration from Austria, France, Wales, Greece, Netherlands, Russia, and Yugoslavia also decreased, but the decline was comparatively small. On the other hand, appreciable increases were recorded for Germany,

Great Britain, Italy, Poland, Norway, Sweden, and Switzerland, resulting in only a small net increase for all Europe, 158,513 immigrants coming from that Continent in the fiscal year 1928 and 158,598 in 1929. Immigration from Central and South America shows a decrease for the year 1929 as compared with the previous year, while from the West Indies, Australia, and New Zealand there was a small increase.

The principal races contributing immigrant aliens during the past fiscal year were the German with 55,631; Mexican, 38,980; Irish, 30,922; English, 29,846; Scotch, 21,926; Scandinavian, (Norwegians, Danes, and Swedes), 19,428; Italians, 19,083; French, 16,957; and Hebrew, 12,479. Out of every 100 immigrants now entering the United States, about 20 are German and 14 Mexican, while the Irish and English comprise about 11 each, Scotch 8, Scandinavian and Italian 7 each, French 6, and Hebrew 4. The other races or peoples contribute about 12 of every 100 present-day immigrant aliens.

While the greatest number of newcomers get their introduction to the United States under the eye of the Statue of Liberty, a large percentage enter by way of the international land boundaries. The New York figures for the fiscal year just ended show 158,238 immigrant aliens landed at that port, with the other ports on all coasts minor in comparison. At Boston, for instance, 5,002 immigrants entered the country; at Canadian Atlantic ports, 2,393; at Providence, 1,719; at Key West, 1,428; at San Francisco, 2,590; at San Diego and other southern California ports, 1,063; at New Orleans, 817; and at Seattle, 584. Only 54 immigrants were admitted at ports in Alaska, 304 in Porto Rico, and 164 in Hawaii. Immigrants reaching the United States by way of the Canadian border numbered 64,846^e principally through the Montreal and Detroit districts, while 39,273 came over the southern land border, mainly through the San Antonio and El Paso (Tex.) districts.

Over half of the newcomers continue to settle in the North Atlantic States, 152,474 immigrants admitted during the past fiscal year being destined to that section of the country. New York received the largest number by far, 87,362 giving the Empire State as their intended future permanent residence, while 19,138 went to Massachusetts, 16,213 to New Jersey, and 15,658 to Pennsylvania. Michigan also received a large number of the new arrivals last year, 25,248 immigrants going to the Wolverine State; Illinois was the destination of 18,530, Ohio 8,087, and other North Central States 13,560. Texas, which is only exceeded by the Empire State in the number of immigrants that settled within its borders, has 24,930 strange residents from other lands, mostly Mexicans from Mexico, to care for. California found 17,330 newcomers within its portals, also mostly Mexicans, and the other Western States expanded by 12,953. The South Atlantic States will check up a gain of only 4,377 new residents from immigration during the fiscal year ended June 30, 1929.

Less than 10 per cent of the immigrants for the past fiscal year were past the prime of life, only 23,753 of the newcomers giving their age at the time of arrival as 45 years and over, while 47,935 were under 16 years, 69,072 ranged in age from 16 to 21 years, 85,222 from 22 to 29 years, 36,907 from 30 to 37 years, and 16,789 from 38 to 44 years. The single immigrants numbered 182,307, married 88,673, widowed

7,976, and divorced 722, the latter group being the only one that showed an increase over the previous year.

The immigrants admitted last year represented nearly all imaginable callings, but those listed as having no occupation, which includes mainly women and children, predominated, 119,694 being of this class. In the professional group, the teachers led the list with 2,036, followed by the engineers with 1,604 and the electricians with 1,105. Clerks and accountants poured in, with a total of 13,927, while 31,841 were servants, 19,849 were farm laborers, 8,309 were farmers, and 26,192 were common laborers looking for new opportunities in America.

Of the 479,327 aliens of all classes admitted at all ports last year, 146,918 came in under the immigration act of 1924 as immigrants charged to the quota, 101,007 as residents of the United States returning from a temporary sojourn abroad, and 97,251 as natives of non-quota countries, which includes Canada, Newfoundland, Mexico, Cuba, Dominican Republic, Haiti, Canal Zone, and the independent countries of Central and South America. Visitors for business or pleasure admitted last year under the act of 1924 numbered 64,310; persons passing through the country on their way to some foreign country, 27,776; and husbands, wives, and unmarried children of American citizens, 30,313. The classes admitted also include 534 wives and unmarried children of natives of nonquota countries, such wives and children having been born in quota countries; 1,252 ministers and professors and their wives and unmarried children; 1,898 students; 132 women who were citizens of the United States; 30 Spanish subjects admitted into Porto Rico; and 18 American Indians born in Canada. Aliens admitted as Government officials, their families, attendants, servants, and employees, numbered 6,266, and to carry on trade under existing treaty, 1,622.

A total of 449,955 American citizens returned to the United States during the fiscal year ended June 30, 1929, the males numbering 235,009 and the females 214,946. The outgoing citizens last year included 230,826 male and 201,016 female, a total of 431,842 going to foreign countries. The largest movements were during July and September, 1928, 68,463 citizens leaving and 80,233 returning during these respective months, the bulk of these passengers being tourists on pleasure bent to European countries.

There were 18,127 aliens barred from entering the United States during the past fiscal year, the major portion of whom were turned back at points along the northern and southern land borders, 12,788 to Canada and 3,306 to Mexico. The remaining 2,033 were rejected at the seaports of entry. While 3.6 per cent of the applicants for admission at all ports were barred during the year, less than six-tenths of 1 per cent, or about 55 out of every 10,000 of the alien arrivals at the seaports were denied admission. The percentage was still smaller for New York, the bulk of the aliens arriving there having been pre-examined abroad. At this port 300,467 aliens sought admission during the year and 939 were rejected, or a little over three-tenths of 1 per cent of the applicants debarred.

A record number of deportations was recorded during the fiscal year 1929, a total of 12,908 undesirable aliens having been deported from the United States under warrant proceedings. This is an in-

crease of 1,283, or 11 per cent, over the previous year, and an increase of 1,246, or 10.7 per cent, over the former peak period for deportations reached in the fiscal year 1927. The average monthly deportations last year was 1,076, but in March the number jumped to 1,352. Over half of the deportees during the past fiscal year entered the country without proper inspection—surreptitious entries—7,526 having entered without proper immigration visas or inspection, while 2,064 remained here longer than permitted, 1,856 were of the criminal and immoral classes, and 672 were mentally or physically defective. The remaining 790 were removed from the country for miscellaneous causes under the general immigration laws. These deportees were sent to nearly every section of the globe, 4,227 going to Europe, 5,481 to Mexico, 2,185 to Canada, 370 to Asia, 308 to the West Indies, and 337 to the other countries.

INWARD AND OUTWARD PASSENGER MOVEMENT FROM JULY 1, 1928, TO JUNE 30, 1929

Period	Inward					Aliens de- barred from enter- ing ¹	Outward					Aliens de- ported after land- ing ²	
	Aliens admitted			United States citizens arrived	Total		Aliens departed			United States citizens de- parted	Total		
	Immi- grant	Non- immi- grant	Total				Emi- grant	Non- emi- grant	Total				
1928													
July-December	147, 707	110, 483	258, 190	268, 338	526, 528	9, 105	44, 677	104, 746	149, 423	243, 087	392, 510	5, 657	
1929													
January	17, 806	10, 440	28, 246	23, 450	51, 696	1, 870	4, 670	10, 938	15, 608	28, 808	44, 416	1, 019	
February	17, 354	10, 608	27, 862	33, 216	61, 078	1, 461	4, 154	10, 358	14, 512	32, 347	46, 859	1, 036	
March	20, 145	13, 493	33, 638	37, 375	71, 013	1, 464	2, 449	6, 917	9, 366	27, 972	37, 338	1, 352	
April	28, 565	19, 066	47, 631	32, 288	79, 919	1, 416	3, 387	11, 733	15, 120	25, 277	40, 397	1, 261	
May	25, 711	18, 426	44, 137	27, 169	71, 306	1, 554	4, 985	17, 781	22, 766	31, 505	54, 271	1, 323	
June	22, 490	17, 133	39, 623	28, 119	67, 742	1, 257	4, 881	20, 822	25, 703	42, 846	68, 549	1, 260	
Total	279, 678	199, 649	479, 327	449, 955	929, 282	18, 127	69, 203	183, 295	252, 498	431, 842	634, 340	12, 908	

¹ These aliens are not included among arrivals, as they were not permitted to enter the United States.

² These aliens are included among aliens departed, they having entered the United States, legally or illegally, and later being deported.

PUBLICATIONS RELATING TO LABOR

Official—United States

CALIFORNIA.—Commission on Pensions of State Employees. *Report*. Sacramento, 1929. 62 pp.; chart.

Reviewed in this issue.

KENTUCKY.—Bureau of Agriculture, Labor, and Statistics. *Bulletin 34: Kentucky—resources and industries*. Frankfort [1929?]. 389 pp.; maps, illus.

Gives total amount of wages paid in 1926, by industries. Also includes an industrial directory.

NEW YORK.—State Board of Housing. *Report to Governor Franklin D. Roosevelt and to the Legislature of the State of New York, March 6, 1929*. Albany, 1929. 96 pp.; charts, illus.

Reviewed in this issue.

UNITED STATES.—Department of Commerce. Bureau of Mines. *Bulletin 305: Inspection and testing of mine-type electrical equipment for permissibility*. Washington, 1929. 26 pp., illus.

— — — *Technical paper 452: Safety organizations in Arizona copper mines*. Washington, 1929. 49 pp.

— Department of Labor. Bureau of Labor Statistics. *Bulletin No. 487: Wages and hours of labor in woolen and worsted manufacturing, 1910 to 1928*. Washington, 1929. 49 pp.

Summary data from this bulletin were given in the November, 1928, issue of the *Labor Review* (pp. 131-137).

— Women's Bureau. *Bulletin No. 70: Negro women in industry in 15 States*. Washington, 1929. 74 pp.; charts, illus.

Reviewed in this issue.

Official—Foreign Countries

AUSTRALIA.—Department of Health. Division of Industrial Hygiene. *Service publication No. 8: Report on an investigation into the health and working conditions of employees in the mining industry of Victoria and Tasmania, 1928*, by Keith R. Moore. Canberra [1929]. 29 pp.

This report gives the results of the clinical examination of 713 miners in different localities with particular reference to the incidence of silicosis and tuberculosis, lead and arsenic poisoning, and rheumatism incurred as a result of exposure to wet and cold. There is also a report on working conditions, and recommendations are made for the improvement of conditions in underground and surface operations.

— [Department of the Treasury.] Pensions and Maternity Allowance Office. *Maternity allowances: Statement showing number of claims granted and rejected, expenditure and cost of administration during the 12 months ended June 30, 1928*. Canberra, 1928. 3 pp.

During the year 135,784 claims for allowances were paid and 1,261 were refused. Approximately two-thirds (833) of the latter were rejected on the ground that the mother, being an alien, was not entitled to an allowance. Other leading causes were that the children were not viable (109) and that the claim was not made within the prescribed time limit (141). These causes account for 86 per

cent of the rejections. The amount paid in benefits was £678,920 (\$3,303,964) and the cost of administration was £15,489 (\$75,377), or £2 5s. 8d. (\$11.11) for each £100 (\$487) paid in allowances. In 1914, the first full year for which allowances were paid, the amount paid in allowances was, £674,990 (\$3,267,201) and the cost of administration £10,281 (\$50,032), or £1 10s. 6d. (\$7.42) for each £100 (\$487) paid in allowances.

AUSTRIA.—Kammer für Arbeiter und Angestellte für Wien. *Löhne der Wiener Arbeiterschaft im Jahre 1926*. Vienna, 1929. 211 pp.

The volume contains statistics of wages of 170,000 wage earners employed in 2,092 industrial establishments in the industrial district of the city of Vienna in 1926.

BELGIUM.—Caisse Générale d'Épargne et de Retraite. *Compte rendu des opérations et de la situation de la Caisse Générale d'Épargne et de Retraite. Année 1928*. [Brussels, 1929?]. 90 pp.

This report covers the financial operations of the general savings and retirement fund in Belgium for the year 1929.

CANADA (BRITISH COLUMBIA).—Workmen's Compensation Board. *Twelfth annual report, for the year ended December 31, 1928*. Victoria, 1929. 32 pp.

Reviewed in this issue.

— (ONTARIO).—Mothers' Allowances Commission. *Annual report for the year 1927-28*. Toronto, 1929. 30 pp.

The number of beneficiaries at the beginning of the year covered was 4,733 and at its end 5,139. The amount expended in allowances was \$2,205,877 as against \$2,017,614 in 1926-27, and \$774,667 in the first year the system was in operation—1920-21. As the work increases, the percentage cost of administration is falling, "and for the past year was 3.5 per cent, compared with 3.7 per cent of the previous year, and 3.93 per cent in 1925-26."

— Workmen's Compensation Board. *Report for 1928*. Toronto, 1929. 75 pp.

Reviewed in this issue.

CHINA.—Legislative Yuan. Bureau of Statistics. *The Statistical Monthly (in Chinese), volume 1, No. 1, March, 1929*. Nanking, 1929. Various paging.

Among the articles in the first issue of this new publication are: Coordination of the statistical work of the Government; On the examination of final digits by experiments in artificial sampling; Statistics in China; and Some recent population statistics of China.

DENMARK.—[Indenrigsministeriet.] *Beretning om Fabriktilsynets Virksomhed i Aaret 1928*. Reprint from the *Socialt Tidsskrift* for June, 1929. Copenhagen, 1929. 19 pp.

Report on factory inspection during 1928.

— (COPENHAGEN).—Statistiske Kontor. *Statistisk Aarbog for København, Frederiksberg og Gjentofte Kommune, 1928*. Copenhagen, 1929. 188 pp., map.

Data on wages in Copenhagen and Frederiksberg taken from this yearbook are given in this issue.

FRANCE.—[Ministère du Travail de l'Hygiène, de l'Assistance et de la Prévoyance Sociales.] *Lois, décrets, arrêtés concernant la réglementation du travail*. Paris, 1928. 577 pp.

This volume contains the text of French laws and decrees relating to labor contracts, regulation of labor, cooperative and labor organizations, conciliation and arbitration, apprenticeship, work of women and children, hours of work, and safety and hygiene.

GERMANY (BREMEN).—Statistisches Landesamt. *Bremen, 1900-1927*. Bremen, 1929. 96 pp.; maps, charts.

The volume contains statistical information in regard to the city of Bremen, including tables and charts showing population classified by sex, age, industries, and degree of skill.

— (SAXONY).—Statistisches Landesamt. *Statistisches Jahrbuch für den Freistaat Sachsen, 1927-1928*. Dresden, 1929. 416 pp.

This statistical yearbook for Saxony includes chapters on labor conditions and relations, welfare work, insurance, and cooperation.

GREAT BRITAIN.—Home Office. *Report on the occurrence of silicosis among sandstone workers*, by Dr. C. L. Sutherland and Dr. S. Bryson. London, 1929. 41 pp.

Reviewed in this issue.

— — Safety pamphlet No. 10: *Fencing of bakehouse machinery. Dough mixers and dough brakes*. London, 1925. 35 pp.; diagrams.

Contains descriptions and working drawings of safety appliances for use on these machines.

— — Safety pamphlet No. 11: *Fencing and other safety precautions for laundry machinery*. London, 1926. 63 pp.; diagrams, illus.

This report gives causes and prevention of accidents in the different processes in the laundry industry and there are descriptions and drawings of safety appliances.

— — Safety pamphlet No. 12: *Safety precautions for transmission machinery in factories. Part II.—Belt mounting*. London, 1929. 61 pp.; diagrams, illus. (Second edition.)

This safety code includes regulations regarding belts used on transmission machinery and also safety rules for workers.

— — Safety Pamphlet No. 13: *Fire protection in factories*. London, 1928. 40 pp.; diagrams, illus.

An account of the best appliances to be used for different types of factory fire hazards, with illustrations.

— Treasury. Unemployment Grants Committee. *Eighth (interim) report of proceedings*. London, 1929. 12 pp.

Reviewed in this issue.

INTERNATIONAL LABOR OFFICE.—*Forced labor. Questionnaire. (Item I on the agenda of International Labor Conference, 14th session, Geneva, 1930.)* Geneva, 1929. 73 pp.

— *Hours of work of salaried employees. Questionnaire. (Item II on the agenda of International Labor Conference, 14th session, Geneva, 1930.)* Geneva, 1929. 48 pp.

— *Studies and reports, series N (statistics), No. 14: Methods of compiling statistics of coal-mining accidents*. Geneva, 1929. 90 pp.

— *Studies and reports, series N (statistics), No. 15: Methods of compiling statistics of railway accidents*. Geneva, 1929. 82 pp.

As an outgrowth of a discussion of the subject at the International Conference of Labor Statisticians in 1923, the International Labor Office has been carrying on a study of the methods used in various countries in collecting and analyzing statistics of industrial accidents. The subject is such a vast one that the study was divided by various major branches of industry. Railroads and coal mines are covered in the two reports just issued.

NORTHERN IRELAND.—General Register Office. *Census of population of Northern Ireland, 1926. General report*. Belfast, 1929. lvi, 81 pp.; map, diagrams.

RUMANIA.—Ministerul Industriei și Comerțului. Institutul de Statistică Generală a Statului. *Statistică prefurilor și indicele costului vieții pe anul 1928*. Bucharest, 1929. 103 pp.

The volume contains statistical information in regard to the prices of commodities and cost of living in Rumania in 1928.

SWEDEN (STOCKHOLM).—Statistiska Kontor. *Statistisk årsbok för Stockholms Stad, 1928. Stockholm, 1928. 259 pp.*

Contains statistical information in regard to the city of Stockholm for 1928, including a chapter (XV) on the workers and employees of the city, their wages and other labor conditions.

SWITZERLAND.—Bureau Fédéral des Assurances. *Rapport sur les entreprises privées en matière d'assurance en Suisse en 1927. Berne, 1929. 140 pp.*

The volume contains statistical information in regard to social insurance in various forms, including industrial accident and unemployment insurance.

UNION OF SOUTH AFRICA.—Office of Census and Statistics. *Official yearbook, 1927-28. Pretoria, 1929. 1196 pp.; maps, diagrams.*

Some data on old-age pensions from the yearbook are in this issue of the Labor Review.

Unofficial

AMERICAN COUNTRY LIFE ASSOCIATION. *A decade of rural progress. Wheeling, W. Va., 1928. 161 pp.*

One part of the volume relates to farm incomes and rural progress and includes papers on Farm income and standard of life; Factors influencing farmers' incomes; Relation of income to successful farming; and Relation of standard of life to success in farming.

AMERICAN MANAGEMENT ASSOCIATION. *General management series, No. 93: Training older employees for continued employment, by C. R. Dooley and Helen Washburn. New York, 20 Vesey Street, 1929. 22 pp.*

Reviewed in this issue.

AMERICAN STANDARDS ASSOCIATION. *American standards yearbook, 1929. New York, 29 West Thirty-ninth Street, 1929. 88 pp.*

Contains a review of the national industrial standardization movement during recent months.

CARNEGIE ENDOWMENT FOR INTERNATIONAL PEACE. *Histoire économique et sociale de la guerre mondiale. Les effets économiques et sociaux de la guerre en Grèce, par André Andréadès. New Haven, Yale University Press, 1929 [?]. 322 pp.; charts.*

This volume, which forms one of the series on the economic and social effects of the World War, deals with the results in Greece, in which country the effects on the numerical and ethnical composition of the population are said to have been more serious than in any other country engaged in the war. An account is given of the financial condition of the country as a result of war expenditures; the condition of the Greek merchant marine; the effect of the war on the rural population; labor legislation before, during, and after the war; and transportation conditions.

CHICAGO COUNCIL OF SOCIAL AGENCIES. *Bulletin No. 5 (third revised edition): The Chicago standard budget for dependent families. Chicago, 203 North Wabash Avenue, June 1, 1929. 52 pp.*

CLARK VICTOR S. *History of manufactures in the United States. Vol. III, 1893-1928. New York, McGraw-Hill Book Co. (Inc.), 1929. 467 pp.; illus. (Published for the Carnegie Institution of Washington.)*

COLE, G. D. H. *The next ten years in British social and economic policy. London, Macmillan & Co. (Ltd.), 1929. xxi, 459 pp.; chart.*

In this book, published before the recent accession of the Labor Party to control, the author, well known for his writing on labor and social subjects, outlines the general program he thinks must inevitably be adopted if Great Britain's present needs are to be met.

COMITÉ CENTRAL DES HOUILLÈRES DE FRANCE. *Annuaire. Houillères, mines de fer, mines métalliques. Trentième année. Paris, 35 rue Saint-Dominique, 1929. Various paging.*

The annual report of the Central Committee of the Coal and Metal Mines of France gives statistics of production in Part IV.

DAVISON, RONALD C. *The unemployed—old policies and new. New York, Longmans, Green & Co., 1929. 292 pp.*

A critical review of the measures adopted in Great Britain for relieving and assisting the unemployed.

DEVOTO, LUIGI. *La Clinica del Lavoro di Milano, venti anni (1910-1929). Milan [1929?]. 79 pp.; plans, illus.*

Reviewed in this issue.

DISTRICT OF COLUMBIA PUBLIC LIBRARY. Reference Department. *Workers' education: A selected list of titles of books and articles, April, 1927-March, 1929. Washington, 1929. 12 pp.*

HALLORAN, MATTHEW F. *The romance of the merit system. Forty-five years' reminiscences of the Civil Service. Washington, 1928. 314 pp. [Privately printed.]*

The author is peculiarly well qualified for producing such a work, having been in the Civil Service Commission, at the time of writing this book, for 45 years. He gives an account of the origin, development, and work of the commission, with personal reminiscences of prominent persons identified with the movement for establishing and maintaining the merit system.

HIITONEN, E. *La compétence de l'organisation internationale du travail. I. Compétence de fond. Paris, Rousseau & Cie, 1929. xlvii, 356 pp.*

This study of the legal competency of the International Labor Organization includes an account of the conditions leading up to its establishment, of the sources of law relating to the organization and their interpretation, and its relationship with the League of Nations. The second part of the volume deals with the competency of the organization with respect to different classes of workers, and the different countries, and concludes with a summary of the theory and the actual practice in the activities of the organization. There is an exhaustive bibliography and the appendixes contain Parts 1 and 13 of the Peace Treaty.

ISTITUTO NAZIONALE DELLE ASSICURAZIONI. *Atti, Vol. I. Rome, 1929. 362 pp.*

Proceedings of the National Institute of Insurance with records of the sessions held during the first half of the year 1928, containing the addresses and the papers on questions of insurance, mortality, economics, and actuarial science. Aside from articles on life insurance in the United States and group insurance in America and England, the articles relate to Italy or are general in character.

JAHRBUCH DES ARBEITSRECHTS. *Band IX: Systematische Übersicht über das Schrifttum, die Rechtsprechung und die Verwaltungspraxis im Jahre 1928 nebst ausführlichem Sachregister. Berlin, J. Bensheimer, 1929. 540 pp.*

The volume contains a review of labor legislation in Germany, including a section on social economics and government activities in the field of labor in 1928. A subject index is also included.

LADIEWICK, ESTHER. *Scholarships for children of working age. Chicago, University of Chicago Press, 1929. xi, 104 pp. (Social Service Monographs, No. 7.)*

Gives a brief sketch of scholarship work as it has developed in this country, an account of the Scholarship Association for Jewish Children, a statistical study of the pupils who have received scholarships through this association, including their later history, and an analysis of the problems of scholarship work and administration.

DE LEENER, GEORGES. *Les caisses de compensation des allocations familiales en Belgique, leur rôle—leur législation—leur avenir.* Brussels, Maurice Lamertin, 1929. 195 pp.

An account of the origin, development, and results of the family allowance system in Belgium, which the author considers is destined not only to endure but to become stronger in the future.

LEESE, CHARLES. *Collective bargaining among photo-engravers in Philadelphia: Ordinary methods applied to an occupation which is both an art and a manual trade.* Philadelphia, University of Pennsylvania Press, 1929. 220 pp. (Wharton School of Finance and Commerce research studies II.)

As explained in the preface, this study "is an attempt to set forth the methods used and the conditions influencing the bargaining relations between the wage earners and the proprietors in the photo-engraving industry in Philadelphia since the formation of the union in 1898."

MACDONALD, LOIS. *Southern mill hills: A study of social and economic forces in certain textile mill villages.* New York, Alex L. Hillman, 1928. 151 pp.

"The case of the Southern textile operatives is the outstanding example of the rapid shift of an agricultural population to urban life and industrial interests." This book gives a study of three mill villages, presenting detailed information as to the ways in which certain communities and individuals are making the adjustments which this rapid shift calls for.

MARTIN, P. W. *Unemployment and purchasing power.* London, P. S. King & Son (Ltd.), 1929. 85 pp., charts.

A study of the relation between employment and monetary policy, and of the possibility of increasing the volume of purchasing power, when desirable, without causing inflation.

NATIONAL CHILD LABOR COMMITTEE. *Publication No. 352: Child labor. A series of articles [reprinted from the American Child] dealing with child labor in its relation to education, health, mental hygiene, recreation, parental education, and the standard of living.* New York, 215 Fourth Avenue, 1929. 39 pp.

— *Publication No. 354: Migratory child workers, by George B. Mangold and Lillian B. Hill.* New York, 215 Fourth Avenue, 1929. 16 pp. (Reprints of speeches presented at the 25th annual conference, June 28, 1929.)

Reviewed in this issue.

NATIONAL INDUSTRIAL CONFERENCE BOARD (INC.). *Industrial standardization.* New York, 247 Park Avenue, 1929. 306 pp.; charts.

This volume, as explained in the preface, has the twofold object (1) of presenting a concise but comprehensive description of the working structure of the industrial standardization movement as it is expressed in the standardization work of individual concerns, engineering societies, trade associations, and national and international standards organizations, and (2) of examining, in the light of available evidence, the authenticity of the numerous economic advantages claimed for standardization by its advocates, and to discuss some of the economic and social problems involved in the progressive extension of the standardization principle.

— *Wages in the United States in 1928. Supplementing "Wages in the United States, 1914-1927," published in April, 1928.* New York, 247 Park Avenue, 1929. 41 pp.; charts.

This volume continues the series of wage studies which have been published annually during the past several years. The present compilation covers the year 1928 and includes wage data for manufacturing industries, public utilities, building trades, agriculture, and Class I railroads.